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AMATEUR ELECTRONIC SUPPLY

HAM RADIO CATALOG

SPRING/SUMMER 2003

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Icom Mobiles and HTs...

Coming Soon!

IC-208H*

Think of it as the '2720H's kid brother - with attitude!

• 55W VHF/50W UHF • 2M/70CM • CTCSS/DTCS Encode/Decode w/ Tone Scan • Wide Band RX[1] 118-999.990 MHz • 500 Alphanumeric Memories • Remote Control Mic • DMS • DTMF Encode • 10dB Attenuator

Get more power, wider RX and a whopping 500 memory channels with this new space saving performer. Change bands right from the tuning knob! Easy to operate while on the go!

Proven Performer!

IC-706MKIIG

Built-in DSP and 100W of output power, yet no bigger than most mobiles!

• 160-10M/6M/2M/70CM • HF/6M @ 100W, 2M @ 50W, 70CM @ 20W • AM, FM, WFM, SSB, CW, RTTY; w/DSP • 107 Alphanumeric Memories • CTCSS Encode/Decode w/Tone Scan • Auto Repeater • Plug-n-Play Filters

"With the addition of another band (70 cm), more power on 2meters and the incremental improvement made with each new version of this popular transceiver, perhaps the '706 has reached its zenith. There's not much left to improve." - QST, 7/99

V/V, U/U, V/U Operation!

IC-2720H

Large display and simple, independent controls on each band make for true dual band fun!

• 2M/70CM • 50W VHF/35W UHF Output • 212 Memories • Remote Control Mic • Wide Band RX[1] 118-549, 810-999.990 MHz • CTCSS/DTCS Encode/Decode w/Tone Scan • Auto Repeater

"Dual-band operation and wide-range receive combine to make the compact IC-2720H an attractive mobile transceiver." - QST, 3/03

High Power 2M!

IC-V8000

75W output for power when you need it! Let your signal be heard!

• 2M • 75W Output • 207 Alphanumeric Memories • Remote Control Mic • FM Narrow Mode • CTCSS/DTCS Encode/Decode w/Tone Scan • Weather Alert & Channel Scan

"Icom's IC-V8000 packs a substantial RF punch in a no-nonsense package." - QST, 7/02

2M On a Budget!

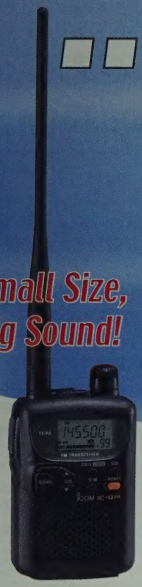
IC-2100H 25n

Commercial grade rugged and simple to use! With superior receive IMD and performance!

• 2M • 50W Output • 113 Alphanumeric Memories • Remote Control Mic • MIL SPEC • CTCSS Encode/Decode w/Tone Scan • Auto Repeater • Large Keys and Knobs

"Those shopping for a wide variety of advanced features in an economically priced 2M mobile will find the Icom IC-2100H worthy of serious consideration." - QST, 1/99

...Fun to GO!



Small Size, Big Sound!

Mini Multiband, Marvel!

High End 2M!

Rugged, Easy to Use!

2M On a Budget!

True Dual Band Performance!

IC-Q7A

- 2M/70CM @350mW/300mW
- Wide Band RX† *30-1300 MHz*
- 200 Memory Channels
- Auto Squelch
- CTCSS Encode/Decode

If you are looking for solid performance in a pocket size, affordably priced package, the IC-Q7A is your radio.

"With its light weight, sub-compact size and wide range of scanning and broadcast band receive capabilities, the IC-Q7A VHF/UHF FM transceiver is always a welcome and entertaining companion – at home, at work or on the go."

QST, 5/99

IC-T90A

- 6M/2M/70CM @ 5.5W
- Wide Band RX†. *495 - 999.99MHz*
- 500 Alphanumeric Memories
- CTCSS & DTCS Encode/ Decode w/Tone Scan
- Weather Alert
- PC Programmable†1

"Compared to the obscure and hard-to-access menu systems of some of ICOM's competitors, setting options on the T90A was a breeze.

The IC-T90A does everything that an FM handheld operator would need to do on the three most popular VHF and UHF bands, and the ease of operation makes the radio particularly ideal as a first handheld for a new amateur."

QST 1/03

IC-T22A

- 2M @ 5W
- RX 118-174 MHz Inc. Air Band RX
- 40 Alphanumeric Memories
- Auto Low Power & Power Saver
- Auto Repeater Function
- PC Programmable†1

Shirt-pocket, just-right size offers more fun on the run! Generously sized buttons are conveniently spaced, making it easy for large fingers to find and press one at a time.

If you're looking for a 5W HT that's rugged and easy to see and use, with just the right amount of bells and whistles, try a T22A. QST judged the IC-T22A as "well made, rugged and sturdy to boot."*

*QST 5/96

IC-U8

- 2M @ 5.5W
- 144-148 MHz (TX), 136-174 MHz (RX)
- 100 Alphanumeric Memories
- CTCSS & DTCS Encode/ Decode w/Tone Scan
- Auto Repeater Function
- PC Programmable†1

"The 'V8's simple appearance belies its well-rounded list of features.

Lab test data for 10-MHz spacing IMD dynamic range performance for this rig was higher than any other 2-meter handheld we've tested in recent years...a good indication that the 'V8 will be particularly resistant to interference...known to plague H-T users that live and work in urban areas.

QST, 12/01

IC-T2H Sport

- 2M @ 6W
- 40 Alphanumeric Memories
- Alkaline Case
- CTCSS Encode/ Decode w/Tone Scan
- Auto Repeater Function
- PC Programmable†1

Perfect for a first time 2M rig or as a military rugged backup (the U.S. Army's Soldier Intercom shares many of this rig's components and framework), Icom's IC-T2H Sport is a "sturdy and well designed radio that has a lot to offer*."

*QST, 12/97
(review of the IC-T2A)

IC-W32A

- 2M/70CM @ 5W
- 200 Alphanumeric Memories
- V/V, U/U, V/U Operation
- Crossband Operation
- True Simultaneous Receive
- DTMF Auto Dialer w/Memory
- Auto Repeater Function
- PC Programmable†1

Icom's true dual band performer is back by popular demand.

"With its five big watts and a plethora of features, the IC-W32A provides just about everything you could possibly need in an H-T. Best of all, perhaps, the IC-W32A makes a serious effort to take some of the pain out of using a small, complex piece of technology."

QST, 7/97

Step out and up with Icom!

www.icomamerica.com

ICOM®

*This device has not been approved by the FCC. It may not be sold or leased, or offered for sale or lease, until approval of the FCC has been obtained. †Cellular frequencies blocked. Unblocked versions available to FCC approved users. †1Optional software and cable required ©2003 ICOM America Inc. 2380 116th Ave NE, Bellevue, WA 98004 • 425-454-8155. The ICOM logo is a registered trademark of ICOM Inc. All specifications are subject to change without notice or obligation. 5953

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(†) TEMPORARY LOW PRICE due to special purchase, over stock, etc. Quantities may be limited at this price.

(Δ) Item **not** discontinued by Manufacturer but probably won't be available from AES when present stock is gone.

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ADI (ADI)

		AES Price
AT-201HP	5w 2m FM HT/batt/cgr/TTP	$ 99.99
AT-401HP	5w 440 FM HT/batt/cgr/TTP	159.99
ARC-12	Smart charger D	49.99
CBP-262	Battery holder; 6 AA nicads	19.99
CHA-072	Wall charger for RBP-072 batt	12.99
CHA-120	Wall charger for RBP-120 batt	12.99
CHA-612	Wall charger for RBP-612 batt .Δ	4.99
CHA-672/CHA-607	Wall cgr; RBP-607 batt Δ	2.99
PCA-145	Cig lighter cable; not for AT-600	14.99
RBP-120NMH	12v 600ma NiMH	69.99
SD-911	Rapid charger	62.99
SLC-200/SLC200S	2.5w case; not AT-600 Δ	4.99
SLC-200-L	5w carrying case; not for AT-600	20.99
SLC-600-S	2.5w carrying case; AT-600 ...Δ	4.99
SLC-600-L	5w carrying case; AT-600HP ..Δ	9.99
See Premier for speaker/mics for ADI HTs		
AR-147+	60w 2m FM Xcvr w/TTP mic	149.99
MTG BKT	Extra mobile bracket	10.99
PROG-47	PC prog soft/cable; AR-147/247/447	39.99
PWR CORD	Extra DC cable	10.99
AR-247	30w 220 FM Xcvr w/TTP mic	209.99
MTG BKT	Extra mobile bracket	10.99
PROG-47	PC prog soft/cable; AR-147/247/447	39.99
PWR CORD	Extra DC cable	10.99
AR-447	35w 440 FM Xcvr w/TTP mic	209.99
MTG BKT	Extra mobile bracket	10.99
PROG-47	PC prog soft/cable; AR-147/247/447	39.99
PWR CORD	Extra DC cable	10.99
ADI/PRYME		
PR-52	5w 6m FM HT/batt/cgr/TTP	$159.99
PR-222	5w 220 FM HT/batt/cgr/TTP	169.99
CBP-263	AA battery case	19.99
CHA-120	Wall charger for RBP-22 batt	12.99
PTC-001	Mobile power pack	28.99
RBP-22H	12v 1000ma NiMH battery	69.99
SD-911	Rapid charger	62.99
SLC-22L	Leather case	14.99
See Premier for speaker/mics for ADI/Pryme HTs		

AES (AES)

Black On Air	Black ON AIR illuminated sign	$ 69.99
Oak On Air	Oak ON AIR illuminated sign	69.99

AES - continued

		AES Price
PCL-1	20w mobile spkr w/3.5mm plug D	19.99

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24-7735P	Coax stripper; RG-58/59/62	$ 21.99
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38-305	500ma 3/4.5/6/7.5/9/12vdc adapter	9.99
38-312	1.2A 1.5/3/4.5/6/7.5/9/12vdc adapt	29.99
38-384	4A power supply, 5A surge	39.99

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AR-3000AB	.1-2036MHz dlx w/SSB/cell blkd	1099.99
MM-1	Mobile mounting bkt; AR-3000AB .D	9.99
SDU-5500	Spectrum display unit	1099.99
AR-8600B	.53M-2.04G base rcvr AM/FM/SB/cell blkd D	799.99
AR-8600 Mk II-B	.53M-2.04G base Rcvr/cell blkd	899.99
SDU-5500	Spectrum display unit	1099.99
AR-8200 Mk III-B	.5M-3G hand/SSB/cell blkd	569.99
LC-8200	Leather case	24.99
SC-8200P	Soft case	13.99
LA-350	3-30MHz active loop antenna	299.99
350M	.54-1.6MHz antenna element	76.99
TDF-370	Multi-media terminal/DSP	329.99

ARRL (ARR)

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348	World Robinson Map	15.00
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354	Your Mobile Companion	12.00

ATOC IRON HORSE (ATO)

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ATA-270	2m/440 2.6/4db glass mt 26" ant	29.99
IH-4501	4 x 5" 3/8-24 quad magnet mt	52.99
IH-4501-SO	4 x 5" SO-239 mt quad magnet mt	57.99
IHF-5S	Set of 5 HF mob ants (10/15/20/40/75)	89.99
IHF-6	6m 7' mobile antenna	19.99
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IHF-17	17m 7' mobile antenna	19.99
IHF-20	20m 7' mobile antenna	19.99
IHF-30	30m 7' mobile antenna	19.99
IHF-40	40m 7' mobile antenna	22.99
IHF-75	75m 7' mobile antenna	26.99
IHKD-3S	Set of 5 quick disconnects	21.99
IHSB-2	Flat stake bed mt w/SO-239 & ⅜-24	23.99
IHSB-4	Triangular stake bed mt/HD rt ang SO-239/⅜-24	29.99
IHTH-1	⅜-24 trailer hitch antenna mount	17.99

Alan Broadband (ALA)

Zap Checker	Radio transmitter/bug detector	$ 89.99

ALINCO (ALI)

DJ-C5T	300mw cc size 2m/440 HT/lith ion/spkr	$149.99
EDC-16B	Cigarette lighter cable w/filter	21.99
EDC-36	Angle plug power cable w/filter	24.99
EME-17	Boom earphone mic	32.99
EME-18	Earphone	8.99
EDS-7	Mic adapter; EME-17/18	12.99
EME-20	Tie-pin mic & earphone	17.99
EMS-49	Miniature lapel spkr/mic	32.99
EMS-50	Speaker/mic	41.99
ESC-34	Soft case w/belt clip	13.99
EBC-3	Belt clip; DJ180TH/280TH D	1.99
EBP-24N	7.2v 1200ma batt; 180/580/582T Δ	69.99
EBP-28N	12v 700ma batt; 180/580/582T ..Δ	59.99

Alinco - continued

	AES Price
EDC-45 Desk quick charger; 180TH/280TH .D	69.99
EDC-49 Batt cgr; EBP-20/22/24/26/28N ....Δ	19.99
EDC-55 Drop-in cgr; EBP30/31/32N; G1T ...Δ	1.99
EDH-12 DC jack adapter; DJ-180/280TH ....Δ	9.99
EJ-15U 200 ch mem unit; DJ-180/280TH ...Δ	24.99
EME-11 Ear/mic w/PTT/VOX; DJ-180/280TH D	19.99
ESC-18 Soft case; 180TH/EBP-26N .....Δ	4.99
ESC-19 Soft case; 180TH/EBP-28N .....Δ	12.99
DJ-196T 5w 2m FM HT/batt/cgr/TTP	139.99
DJ-296T 5w 220 FM HT/batt/cgr/TTP	179.99
DJ-496T 5w 440 FM HT/batt/cgr/TTP	149.99
DJ-596T 5w 2m/440 FM HT/NiMH/cgr/TTP	209.99
EBC-6 Mobile bracket	15.99
EBP-48N 9.6v 700ma 5w nicad battery	64.99
EBP-50N 9.6v 700ma 5w NiMH battery	23.99
EBP-51N 9.6v 1500ma 5w NiMH battery	37.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-88 Quick charger; nicad battery packs	60.99
EDC-97 Quick charger; MiMH battery packs	70.99
EDH-30 Dry cell battery case	15.99
EJ-43U Digital board for DJ-596T only	109.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99
EMS-47 Spkr/mic w/volume control	24.99
ERW-4C PC cable	39.99
ESC-36 Soft case for EBP-48N	13.99
SW-596 Windows prog software; DJ-596T	29.99
DJ-V5TH 5w 2m/440 FM HT/batt/cgr/TTP	209.99
EBP-46N 9.6v 600ma 5w nicad battery	64.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-91 Quick charger	60.99
EDH-29 Dry cell case for 4-AA's	12.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99
EMS-8Z Remote speaker/mic	50.99
EMS-47 Spkr/mic w/volume control	24.99
ESC-35 Soft case for EBP-45N/46N	13.99
DJ-S11T 340mw 2m FM HT/battery holder	79.99
EBC-6 Mobile bracket	15.99
EDC-78 Wall charger; (not for alkalines)	7.99
EDH-18 12v to 5.5v DC/DC conv/cig plug	32.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99
EMS-47 Spkr/mic w/volume control	24.99
ESC-27 Soft case	16.99
DJ-S40T 500mw 440 FM HT/battery holder	89.99
EBC-6 Mobile bracket	15.99
EBP-52N 3.6v 500ma NiMH battery	37.99
EBP-53N 6v 500ma NiMH battery	45.99
EBP-54N 3.6v 1500ma NiMH battery	49.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-105 Drop-in NIMH battery cgr, less ps	24.99

Alinco - continued

	AES Price
EDC-93 Wall ps for EDC-105	10.99
EDH-31 Dry cell battery case	12.99
EME-6 Earphone	10.99
EME-12 Headset w/earphone/mic/VOX	71.99
EME-13 Headset w/ear bud/mic/VOX	71.99
EME-15 Earphone/mic w/VOX	56.99
EME-17 Boom earphone mic	32.99
EME-20 Tie-pin mic & earphone	17.99
EMS-8Z Remote speaker/mic	50.99
EMS-47 Spkr/mic w/volume control	24.99
ERW-4C PC cable	39.99
ESC-37 Soft case	13.99
DJ-X2T 522KHz-1GHz cc size Rcvr/lith ion/cell blkd D	199.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDH-27 Dry cell case w/charger	38.99
EDH-28 DC/DC converter w/cig plug	35.99
ESC-34 Soft case w/belt clip	13.99
DJ-X3T .1MHz-1.3GHz AM/FM hand Rcvr/cell blkd	209.99
EBP-52S 3.6v 500ma NiMH battery	37.99
EDC-105 Drop-in NiMH battery cgr, less ps	24.99
EDC-93 Wall ps for EDC-105	10.99
EDH-31S Dry cell battery case	12.99
ESC-37 Soft case	13.99
DJ-X10T .1MHz-2GHz AM/FM/SB hand rcv/cell blkd	309.99
EBP-33N 4.8v 650ma nicad battery	34.99
EBP-34N 4.8v 1200ma nicad battery	84.99
EBP-37N 4.8v 700ma nicad battery	34.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-88 Quick charger; nicad battery packs	60.99
EDH-16 Dry cell battery case	12.99
EME-6 Earphone	10.99
ERW-4C PC cable	39.99
ESC-28 Soft case for EBP-33N	13.99
ESC-29 Soft case for EBP-37N	13.99
ESC-30 Soft case for EBP-34N	13.99
DJ-X2000T .1-2149MHz receiver/cell blocked	499.99
EBP-33N 4.8v 650ma nicad battery	34.99
EBP-34N 4.8v 1200ma nicad battery	84.99
EBP-37N 4.8v 700ma nicad battery	34.99
EDC-16B Cigarette lighter cable w/filter	21.99
EDC-36 Angle plug power cable w/filter	24.99
EDC-37 13.8v power cable	7.99
EDC-43 Cig lighter cable	10.99
EDC-88 Quick charger; nicad battery packs	60.99
EDH-16 Dry cell battery case	12.99
EME-6 Earphone	10.99
ERW-4C PC cable	39.99
ESC-28 Soft case for EBP-33N	13.99
ESC-29 Soft case for EBP-37N	13.99
ESC-30 Soft case for EBP-34N	13.99
DR-M06TH 20w 6m FM Xcvr/TTP/encoder	259.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
DR-135T Black 50w 2m FM Xcvr w/TTP mic	169.99
DR-235T Black 25w 220 FM Xcvr w/TTP mic	249.99
DR-435T Black 35w 440 FM Xcvr w/TTP mic	259.99
EDC-37 13.8v power cable; ignition on/off	7.99
EDC-43 Cig lighter cable; ignition on/off	10.99
EJ-40U Digital board; DR-135T/TP/235T/435T	119.99
EJ-41U 1200/9600 TNC unit; 135/235/435T	139.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
DR-135TP Black 50w 2m FM/TT/1200/9600 TNC	269.99
EDC-37 13.8v power cable; ignition on/off	7.99

Alinco - continued

	AES Price
EDC-43 Cig lighter cable; ignition on/off	10.99
EJ-40U Digital board; DR-135T/TP/235T/435T	119.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
CC-150 Cloning cable for DR-150TQ .....D	4.99
EJ-19U Memory expansion unit; DR-430TQ Δ	4.99
DR-605TQ 50/35w 2m/440 FM/TT/EJ24U tone sq	339.99
EMS-14 Desk top microphone	114.99
EDS-8 Adapter for EMS-14 w/DR-605TQ	28.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
DR-620T 50/35w 2m/440 FM Xcvr/TTP	339.99
EDS-9 Separation kit	45.99
EJ-47U Digital board for DR-620T	179.99
EJ-50U TNC unit for DR-620T	129.99
MB-130 Extra mobile bracket	19.99
HK-130 Hardware kit for MB-130	4.99
PC-15B Extra DC cable	10.99
EDS-1 Junc box w/ext spkr, mic jacks; 610TQ Δ	29.99
DX-70TH Comp HF Xcvr/100w 6m/mob bkt	749.99
DM-330MVT 30A switching ps/meter/32A surge	179.99
DM-340MVT 30A ps w/meters/35A surge D	159.99
EBC-8 Front control head bracket	15.99
EBC-9 Extra mobile bracket	32.99
EDS-4 Rem mt acc kit w/5' cable, 2 covers	41.99
EDS-5 15' microphone extension cable	36.99
EDS-6 15' remote cable	68.99
EDX-2 160-10m 200w wire auto tuner	319.99
EMS-14 Desk top microphone	114.99
PC-25 Extra DC cable	35.99
DX-77T 160-10m HF Xcvr	699.99
DM-330MVT 30A switching ps/meter/32A surge	179.99
DM-340MVT 30A ps w/meters/35A surge D	159.99
EDS-5 5' microphone extension cable	36.99
EDX-2 160-10m 200w wire auto tuner	319.99
EMS-14 Desk top microphone	114.99
ERW-4C PC cable	39.99
PC-25 Extra DC cable	35.99

ALPHA DELTA (ALP)

Extra **arc-plug** cartridge for **LT** or LT/N .....D	$ .99
RT-N/2G 200w 1 GHz type N protector .....D	9.99
ATT-3G50 200w 3GHz type N surge protector	59.99
ATT-3G50-HP 2kw 3GHz type N surge protector	59.99
ATT-3G50U 200w 500MHz surge protector	49.99
ATT-3G50U-HP 2kw 500MHz surge protector	49.99
ATT/3G50 Extra 200w arc-plug cartridge	14.99
ATT-HP/3G50HP Extra 2kw arc-plug cart	14.99
Delta-2 500 MHz 2-pos coax switch/protector	49.99
Delta-2/N 1.3 GHz 2-pos type N switch/protector	64.99
Delta-4 500 MHz 4-pos coax switch/protector	79.99
Delta-4/N 1.3 GHz 4-pos type N switch/protector	89.99
D-4 Extra arc-plug; Delta-2/2N/4/4N	9.99
Delta-4C 4-pos coax switch/protector console D	139.99
Delta-4CN 4-pos N coax switch/protector console D	149.99
D-4 Extra arc-plug; Delta-4C/4CN	9.99
Delta-C Kit w/ctr ins/2 end ins/static protect	29.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.99
Delta-CIN Antenna end insulator .....each	1.99
DX-80 80m 134' complete dipole antenna	49.99
DX-40 40m 67' complete dipole antenna	39.99
DX-20 20m 34' complete dipole antenna	39.99
DX-A 160-80-40m twin sloper antenna	59.99
DX-B 160-80-40-30m 60' sloper ant	69.99
DX-CC 80-10m 5-band 82' no trap, no tuner dipole	119.99
DX-DD 80/40m 82' Delta Dipole antenna	89.99
DX-EE 40-10m 4-band 40' no trap, no tuner dipole	99.99
DX-LB 160-80-40m 100' shortened dipole	119.99
DX-LB Plus 160/80/40/20/15/10m 100' short dip	149.99

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Alpha Delta - continued

	AES Price
DX-SWL AM broadcast-13m 60' SWL sloper ant	79.99
DX-Ultra AM broadcast-30MHz 80' SWL dipole	119.99
SEP Extra arc-plug cart; DX-Ultra/Delta-C	15.99
Outpost Base tripod mtg sys for mobile ant	199.99
Pathfinder 1.8-30Mhz+6m dig auto ant tuner	399.99
Pathminder 1.8-54 dig 6pos coax switch/protector	149.99
SK-1 Straight Kent key	129.99
SP-1 Single paddle Kent key	139.99
TP-1 Twin paddle iambic Kent key	149.99
VK-1 Vail Correspondent Kent straight key	198.99
Basic Technology Amateur Radio video & book	39.99

Also see OUTBACKER

AMECO PUBLICATIONS (AME)

4-01 Code Course Instruction Booklet	$ 2.99

CODE COURSES - CASSETTE TAPES

100-T Junior code tape, 0-7½ wpm	$ 5.95
107-PC-2 IBM Morse Code Course, version 2.0	29.95

CODE PRACTICE OSCILLATORS & CODE KEYS

K-1 Bakelite type key	$ 10.95
K-4 Brass type key	16.95
OCM-2K Code oscillator & CW monitor kit	19.99
OCM-2W Wired oscillator & CW monitor	24.99

PREAMPLIFIERS

TPA HF receive preamp & indoor active ant	$ 76.99
P-9T Power supply for TPA	9.99
PT-3 2-54 MHz transceiver preamp	124.99
P-12T Power supply for PT-3	9.99

FILTERS

HP-75T 75 ohm high-pass filter	$ 12.99
HP-300T 300 ohm high-pass filter	12.99

AMERITRON (AMR)

AL-80B 1kw PEP out linear amp (3-500Z)	1199.99
AL-82 1.5kw PEP out linear amp (2 3-500Zs)	2099.99
AL-572 1.3kw PEP out linear amp (4 572Bs)	1299.99
AL-800 1250w PEP out linear (3CX800A7)	1629.99
AL-800H 1.5kw PEP out amp (2 3CX800A7)	2399.99
AL-811 600w PEP out linear amp (3 811As)	599.99
AL-811H 800w PEP out linear amp (4 811As)	749.99
AL-1200 1.5kw PEP out linear (3CX-1200A7)	2199.99
AL-1500 1.5kw out linear amplifier (8877)	2599.99
ALS-500M 500w PEP out solid state mob amp	699.99
ALS-600 600w PEP out solid state amp w/ps	1129.99
ARB-704 Amplifier Xcvr interface buffer	49.99
PNP-5M Plug & play cable; FT-847	15.99
PNP-7D Plug & play cable; TS-50S/870S/2000	15.99
PNP-8D Plug & play cable; FT-920/1000 series	15.99
PNP-8M Plug & play cable; FT-817/840	15.99
PNP-35 Plug & play cable; FT-100 series	15.99
ARB-704I2 Amp Xcvr interface; IC-706 series	49.99
PNP-13D Plug & play cable; IC-706 series	15.99
ATP-100 Amplifier tuning pulser	49.99
ATP-102 Deluxe amplifier tuning pulser	59.99
ATR-20 1.2kw PEP antenna tuner	419.99
ATR-30 3kw PEP antenna tuner	549.99
ADL-1500 1.5kw dummy load with oil	69.99
ADL-2500 2.5kw dummy load with fan	189.99
ICP-120 120v inrush protector	79.99
ICP-240 240v inrush protector	79.99
AWM-30 3kw PEP SWR/wattmeter/rem sens	139.99
QSK-5 Stand alone T/R switch	329.99
QSK-5PC PC board kit; T/R switch	229.99
CF-5 Cooling fan for QSK-5	39.99
RCS-4 4-pos wireless remote coax switch	129.99
RCS-8V 160-2m 5-pos remote coax switch	139.99
RCS-8VN 160-2m 5-pos N rem coax switch	149.99
Note: RCS-8V/VN require 8-wire control cable.	
RCS-10 DC-100MHz 8-pos remote coax switch	149.99
Note: RCS-10 requires 4-wire control cable.	

AES Price

ANTENEX (ANX)

AB-FT 118-896MHz ¼ wave NMO whip	$ 16.99
AB-SCANC VHF/UHF/800MHz NMO mob scan ant	29.99
BB-1442N 144-174 2.4db no gnd plane NMO mob	39.99
BB-1443 144-174MHz 3db 49" NMO mobile	39.99
BB-4303 430-450 3db 11¾" NMO mobile	34.99
CB-144/440C 2m/440 2/5db NMO mobile	49.99
CWB-1443 Self-tuning 144-156 3db NMO mob	49.99
CWB-4405C Self-tuning 440-470 5db NMO mob	49.99
GB-8PSTI NMO mag mt w/coax & teflon PL259	29.99
GPSU-15GBNC GPS mag mt ant w/coax & BNC	99.99
LBMB-9034 Mirror mt ¾" hole L-bracket	10.99
MB-8PST NMO hole mt w/coax & teflon PL259	15.99
TRAB-1420 142-164 Phantom whipless NMO	59.99
TRAB-4303 430-450 3db Phantom whipless NMO	29.99
Y-1363 136-150 3el 7.1db gold welded beam	119.99
Y-4303 430-450 3el 7.1db gold welded beam	99.99

Antenna Specialists (ASP)

AP-143 2m 23" on glass cell look-alike ant D	$ 69.99
APR143 2m 23" on glass cell look-alike ant	69.99
APR151.3 2m 3db 33" on glass antenna	69.99
KAV-382 On glass replacement mtg kit	13.99
MS180 Gutter mount CB antenna .....D	9.99

Antenna Supermarket (ANT)

Eavesdropper* 60-11m trap dipole SWL ant	$ 89.99
*Specify **SO-239** or **twin**-lead	

ANTENNA WORLD (ANW)

COM136-4500NP VHF/UHF port dipole/BNC	$ 19.99

ARROW Antenna (ARA)

146/437-10 3 el 2m/7 el 440 handheld beam	$ 73.00
146/437-10BP 3el 2m/7el 440 HH split bm beam	79.00
10w duplexer (installs in boom) w/BNC	59.00
10w **duplexer** (installs in boom) w/**SMA**	64.00

ARTSCI (ART)

Lost Users Manuals	$ 19.95
US Repeater Mapbook 2000/2001 edition	9.99

ASTATIC (AST)

Silver Eagle Final Edition amp desk mic ....D	$199.99

ASTRON (ASR)

RS-4L 3A ps, 4A surge, w/cig lighter socket	$ 49.99
RS-7A 5A power supply, 7A surge	59.99
RS-10A 7.5A power supply, 10A surge	69.99
RS-12A 9A power supply, 12A surge	79.99
RS-12S 9A ps, 12A surge, w/speaker	89.99
RS-20A 16A power supply, 20A surge	99.99
RS-35A 25A power supply, 35A surge	149.99
RS-35A/220V 220v 25A ps, 35A surge	169.99
RS-50A 37A power supply, 50A surge	219.99
RS-70A 57A power supply, 70A surge	259.99
RS-20M 16A ps w/meters, 20A surge	119.99
RS-35M 25A ps w/meters, 35A surge	169.99
RS-50M 37A ps w/meters, 50A surge	239.99
RS-70M 57A ps w/meters, 70A surge	289.99
VS-20ML Variable 16A ps/meters, 20A surge	139.99
VS-35M Variable 25A ps/meters, 35A surge	189.99
VS-50M Variable 37A ps/meters, 50A surge	259.99
RM-35M 25A rack mt ps/meters, 35A surge	249.99
RM-50M 37A rack mt ps/meters, 50A surge	279.99
RM-60M 50A rack mt ps/meters, 55A surge	359.99
SS-25 20A switching ps, 25A surge	109.99
SS-25M 20A switching ps/meters, 25A surge	129.99
SS-30 25A switching ps, 30A surge	119.99
SS-30M 25A switching ps/meters, 30A surge	139.99
12/115 200w 12vdc-115vac inverter .....Δ	59.99
N2412-12 9A 22-32vdc to 13.8vdc converter	49.99

Astron - continued

AES Price

N2412-24 16A 22-32vdc to 13.8vdc converter	79.99

BMI (BMI)

972AD 14" 12/24-hour wall clock	$ 32.99
973A 12" 24-hour wall clock	49.99

B & W (B&W)

AP-10A 51" portable 40/20/15/10/6/2m ant	$ 89.99
AT-55 40/20/15/10m 55' trap dipole ant ....D	99.99
AT-110 80/40/20/15/10m 110' trap dipole .D	99.99
AS-160 160/80/40/20m 137' trap dipole ....D	154.99
AS-80 80/40/20m 78' trap dipole antenna .D	119.99
AS-40 40/20/15/10m 40' trap dipole ant ...D	154.99
AS-20 20/15/10m 20' trap dipole antenna .D	119.99
AC-1.8-30 Continuous 1.8-30 MHz vee ant	209.99
ACS-1.8-30 Continuous 1.8-30MHz stainless vee	329.99
AXS-160 160/30m 96' trap dipole antenna D	89.99
AXS-80 80/40/15m 65' trap dipole ant .....D	119.99
AC-5-30 5-30 MHz 65' folded dipole .....D	199.99
ACS-5-30 5-30 Mhz stainless 65' folded dipole D	319.99
BWD-1.8-30 1.8-30 MHz 90' folded dipole .D	199.99
BWDS-1.8-30 1.8-30 stainless 90' folded dip D	319.99
BWD-20 14-30 MHz 20' folded dipole	179.99
BWD-45 7-30 MHz 45' folded dipole	189.99
BWD-65 4-30 MHz 65' folded dipole	199.99
BWDS-65 4-30 MHz stainless 65' folded dipole	319.99
BWD-90 1.8-30 MHz 90' folded dipole	209.99
BWDS-90 1.8-30 stainless 90' folded dipole	339.99
FDMK Mtg kit; folded dipole w/3 pole installation	39.99

BELDEN (BEL)

52 OHM COAXIAL CABLE

8216 RG-174 (sub-miniature)	per ft.	$ .31
8216	**100** ft. Roll	29.99
8216	**500** ft. Roll	109.99
8216	**1000** ft. Roll	199.99
9201 RG-58 (solid center)	per ft.,Δ	.16
9201	**100** ft. cut,Δ	14.99
9201	**500** ft. Roll,Δ	59.99
8240 RG-58U (solid center)	per ft.	.30
8240	**100** ft. Roll	28.99
8240	**500** ft. Roll	104.99
8240	**1000** ft. Roll	199.99
8259 RG-58AU (stranded center)	per ft.	.34
8259	**100** ft. Roll	31.99
8259	**500** ft. Roll	109.99
8259	**1000** ft. Roll	199.99
8219 RG-58AU (stranded, foam)	per ft.	.34
8219	**100** ft. Roll	31.99
8219	**500** ft. Roll	104.99
8219	**1000** ft. Roll	199.99
8262 RG-58CU (non-contaminating)	per ft.	.42
8262	**100** ft. cut	38.99
8262	**500** ft. Roll	149.99
8262	**1000** ft. Roll	269.99
9258 RG-8X (stranded, foam)	per ft.	.39
9258	**100** ft. cut	34.99
9258	**500** ft. Roll	129.99
9258	**1000** ft. Roll	239.99
8237 RG-8U	per ft.	.64
8237	**100** ft. Roll	59.99
8237	**500** ft. Roll	249.99
8214 RG-8U (foam)	per ft.	.59
8214	**100** ft. Roll	54.99
8214	**500** ft. Roll	259.99
8214	**1000** ft. Roll	489.99
9913 RG-8U (low loss)	**100** ft. Roll	59.99
9913	**250** ft. Roll	129.99
9913	**500** ft. Roll	239.99

Belden - continued

		AES Price
9913F7	RG-8U (low loss, flexible) .....per ft.	.87
9913F7	.....100 ft. Roll	79.99
9913F7	.....250 ft. Roll	159.99
9913F7	.....500 ft. Roll	299.99
9251	RG-8A (non-contaminating) ...per ft.,Δ	.64
9251	.....100 ft. cut,Δ	59.99
9251	.....500 ft. Roll,Δ	279.99
8267	RG-213 (non-contaminating) .....per ft.	.87
8267	.....100 ft. cut	79.99
8267	.....500 ft. Roll	349.99

75 OHM COAXIAL CABLE

8241	RG-59U (73 ohm, solid center) ...per ft.	$ .33
8241	.....100 ft. Roll	29.99
8241	.....500 ft. Roll	94.99
8241	.....1000 ft. Roll	179.99
8238	RG-11 (75 ohm, stranded center) per ft.	.99
8238	.....100 ft. cut	94.99
8238	.....500 ft. Roll	349.99
8213	RG-11 (75 ohm, solid, foam) .....per ft.	.89
8213	.....100 ft. cut	79.99
8213	.....500 ft. Roll	289.99

ROTOR CABLE

8484	4-wire; 4-20 gauge .....per ft.	$ .29
8484	.....100 ft. cut	26.99
8484	.....500 ft. Roll	99.99
8484	.....1000 ft. Roll	189.99
8448	8-wire; 2-18, 6-22 gauge .....per ft.	.34
8448	.....100 ft. cut	29.99
8448	.....500 ft. Roll	129.99
8448	.....1000 ft. Roll	249.99
9405	8-wire; 2-16, 6-18 gauge .....per ft.	.74
9405	.....100 ft. cut	69.99
9405	.....500 ft. Roll	319.99
9405	.....1000 ft. Roll	599.99

COPPERWELD ANTENNA WIRE

8000	No. 14 stranded antenna wire ....per ft.	$ .24
8000	.....100 ft. Roll	20.99
8000	.....1000 ft. Roll	179.99

No. 8 ALUMINUM GROUND WIRE

8018	Multiples of **50** ft. .....each	$ 14.99
8018	.....500 ft. Roll,Δ	69.99

Note: All above roll pricing is for rolls as shown only; all other lengths, even if more than roll length shown or a multiple of roll length shown, are sold at the per ft. price.

FOAM COAX w/PL-259s ON BOTH ENDS

9354	50' RG-8U foam	$ 54.99
9355	75' RG-8U foam	79.99
9356	100' RG-8U foam	94.99

BELMERIT (BLM)

DM-80	Credit card size multimeter w/case ...	$ 34.99
DX-405	10 func/39 range+20MHz freq multimeter	69.99

BENCHER (BEN)

BY-1	lambic keyer paddle w/black base	$109.99
BY-2	lambic keyer paddle w/chrome base	129.99
BY-3	lambic keyer paddle, gold plated .....Δ	299.99
BY-4	lambic paddle/blk base/gold components	189.99
170-82	Merc paddle drop ship; mfgr engrave call $50	449.99
ST-1	Single lever keyer paddle, black base ...	109.99
ST-2	Sgl lever kyr paddle, chrome base	129.99
RJ-1	Dlx hand key w/navy knob/black base ..	105.99
RJ-2	Dlx hand key w/navy knob/chrome base	130.99
XW-1	Low voltage DC fuse panel .....D	14.99
XW-20	Fuse kit .....D	1.99
XW-39/XW-30	Crimp terminal kit .....D	1.49
XW-40	Screw terminal kit .....D	1.99
HWK	Hardware kit; ZA-1A for 2" boom .....D	2.99

Bencher - continued

		AES Price
YA-1	1kw low pass filter	85.99

Bounty Hunter (BOU)

Fast Tracker	Metal detector/2-tone target ID	$ 99.99
Tracker IV	Metal detector/3-mode	129.99
Quick Draw II	Metal detector/full motion	224.99
Sharp Shooter II	Metal detector/LCD readout	279.99
Land Star	Metal detector/3-tone audio discrim	349.99
Land Ranger	Metal detector/programmable .	449.99
Time Ranger	Metal detector/top-of-the-line .	549.99
Carry Bag	For Bounty Hunter metal detectors	29.99
10" Coil	10" magnum coil; adds depth	59.99

BUCKMASTER (BUC)

HamCall	CD-ROM ham listings	$ 50.99

BUSHNELL (BUS)

13-0430	4x30 LiteVision compact binoculars	$ 13.99
13-0721	7x21 compact Falcon binoculars ..D	29.99
13-1226	12x25 camo FRP compact binocs ...	29.99
13-1250	12x50 wide angle Powerview binocs	59.99
13-2514	8x21 black compact binoculars	21.99
13-3410	7x35 Falcon binoculars	29.99
26-3150	Night Vision 3.1x50 binocular	459.99
78-0040	90mm refractor telescope .....D	439.99
78-0103	1.25" erecting prism	69.99
78-0200	4.5" reflector telescope .....D	269.99
78-2010	4.5" reflector telescope	199.99
78-8000	8" Dobsonian reflector telescope ..D	399.99
78-9440	60mm refractor telescope .....D	89.99
78-9470	60mm refractor telescope w/zoom ..	129.99
78-9675	4.5" reflector telescope .....D	229.99
78-0101	1.25" 9mm Kellner eyepc; 0040/6000/8000	29.99
78-0102	1.25" 25mm Kellner eyepiece	29.99
78-0105	1.25" 2x Barlow lens; 0040/0200/6000/8000	39.99
78-0106	DC/batt clock drive; 0040/0200/9675	89.99
10-1907	Speedster sports speed gun	199.99

BUTTERNUT (BUT)

Skyhawk 3X10	Triband 10 el, 24' beam w/bauln *	$999.99

***This item is drop-shipped (shipped direct to you from the Butternut factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Wood Dale, Illinois via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item.**

HF-6VX	80/40/30/20/15/10m 26' vert ant	349.99
HF-9VX	80/40/30/20/17/15/12/10/6m 26' vert	399.99
A17-12	17 & 12m kit for HF-6VX	65.99
CPK	Counterpoise kit	149.99
MPS	Mounting post sleeve	12.99
RMK-II	Roof mounting kit w/radials	179.99
STR-II	Radial kit only	139.99
TBR-160S	160m resonator	139.99
HF-2V	80/40m 32' vertical	269.99
30-MRK	30m resonator for HF-2V	120.99
TBR-160S	160m resonator	139.99

CQ (CQX)

Building and Using Baluns and Ununs		$ 19.99
Lew McCoy on Antennas		15.99
Shortwave Propagation Handbook		19.99
W6SAI HF Antenna Handbook		19.99

CSS (CSS)

Pacterm 98	CSS Software; Kantronics TNCs	$ 79.99
PK-Term 99	Terminal prog; PK-12/96/232 ...	79.99

CABLE X-PERTS (CAB)

CXP1318FX	CXP1318FX (low loss, flexible) per ft.	$ .59

Cbl Xperts - continued

		AES Price
CXP1318FX	.....500 ft. Roll	269.99
CXP1318FC-3	3' CXP1318FX/silver teflon PL259s	14.99
CXP1318FC-50	50' CXP1318FX/silver teflon PL259s	48.99
CXP1318FC-75	75' CXP1318FX/silver teflon PL259s	67.99
CXP1318FC-100	100' CXP1318FX/silver teflon PL259s	84.99
CXP1318FC-150	150' CXP1318FX/silver teflon PL259s	121.99
CXP1318FN-3	3' CXP1318FX/type N males	19.99
CXP1318FN-75	75' CXP1318FX/type N males	81.99
CXP1318FN-100	100' CXP1318FX/type N males	98.99
CXP1318FN-125	125' CXP1318FX/type N males	116.99
CXP008C-3	3' RG8 foam/silver teflon PL259s	12.99
CXP008C-6	6' RG8 foam/silver teflon PL259s	14.99
CXP008C-25	25' RG8 foam/silver teflon PL259s	25.99
CXP008C-50	50' RG8 foam/silver teflon PL259s	37.99
CXP008C-75	75' RG8 foam/silver teflon PL259s	49.99
CXP008C-100	100' RG8 foam/silver teflon PL259s	61.99
CXP008C-125	125' RG8 foam/silver teflon PL259s	77.99
CXP213C-6	6' RG213/silver teflon PL259s ...	14.99
CXP213C-15	15' RG213/silver teflon PL259s	22.99
CXP213C-25	25' RG213/silver teflon PL259s	25.99
CXP213C-50	50' RG213/silver teflon PL259s	37.99
CXP213C-75	75' RG213/silver teflon PL259s	49.99
CXP213C-100	100' RG213/silver teflon PL259s	61.99
CXP08XCC-3	3' RG8X clear/silver teflon PL259s	11.99
CXP08XC-25	25' RG8X/silver teflon PL259s .	18.99
CXP08XC-50	50' RG8X/silver teflon PL259s .	24.99
CXP08XC-75	75' RG8X/silver teflon PL259s .	28.99
CXP08XC-100	100' RG8X/silver teflon PL259s	32.99
CXP058ARBS-3	3' RG58/BNC male- SO-239	15.99
CXP142SBJ-3	3' RG142/SMA male - BNC female	19.99
CXP08XCB-3	3' RG8X/male BNCs	13.99
CXP08XCB-6	6' RG8X/male BNCs	14.99
CXP316RSSO-3	3' RG316/SMA male - SO-239	19.99
CXP522-6	6' keyer hook-up cable w/S-267 plug	19.99
235	1" tinned copper ground braid .....per ft	.99
235	.....100 ft. Roll	92.99
2332	½" tinned copper ground braid ...per ft.	.59
2332	.....100 ft. Roll	52.99
AZ-10	10ga red/black DC power cord ...per ft	.39
AZ-10	.....100 ft. Roll	29.99
AZ-12	12ga red/black DC power cord ...per ft	.29
AZ-12	.....100 ft. Roll	19.99

CASTLE RIDGE (CRO)

SOLID COPPERWELD ANTENNA WIRE

AN-122	100 feet No. 12	$ 29.99
AN-123	150 feet No. 12	39.99
AN-124	250 feet No. 12	59.99
AN-126	500 feet No. 12	99.99
AN-128	1000 feet No. 12	179.99
AN-142	100 feet No. 14	24.99
AN-143	150 feet No. 14	29.99
AN-144	250 feet No. 14	39.99
AN-146	500 feet No. 14	69.99
AN-148	1000 feet No. 14	119.99
AN-181	250 feet No. 18	17.99
AN-182	500 feet No. 18	29.99

CELESTRON (CEL)

4020	40x dissecting microscope	$ 79.99
4030	40-500x educational microscope	119.99
4050	40/100/400x biological microscope	199.99
11015	Celestar 8 telescope .....D	999.99
94162	Solar filter for Nexstra 8/Celestar 8	79.99
11021	NexStar 8i telescope	1199.99
93501	Heavy duty tripod	299.99
93593	Standard tripod	149.99
93962	NexStar hand control	149.99
93963	GPS module - CN16	199.99
11033	NexStar 5i telescope	899.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Celestron - continued

		AES Price
93497	Standard tripod	149.99
93962	NexStar hand control	149.99
93963	GPS module - CN16	199.99
11051	G-5 w/motor drive telescope D	699.99
11052	Nexstar 8 GPS telescope	*1999.99

*Price with instant coupon; coupon expires 4/30/03

11053	NexStar 11 GPS telescope	2999.99
21072	Firstscope 80 EQ-WA refractor telescope D	199.99
94135	Solar filter for Firstscope 80EQ-WA	34.99
22062	NexStar 60GT telescope	249.99
22082	NexStar 80GT telescope	349.99
302160	Soft case for Nexstar 60/80 Δ	69.99
94135	Solar filter for Nexstar 60GT/80GT	34.99
31034	Tabletop 76 reflector telescope	99.99
31044	Firstscope 114 4.5" reflector telescope	249.99
31056	C150-HD reflector telescope	399.99
31058	G-8N 8" Newtonian reflector telescope D	449.99
31142	NexStar 114GT telescope	439.99
50025	30mm mini spotting scope w/tripod D	59.99
52200	60mm pro zoom spotting scope	199.99
52211	60mm wildlife zoom spotting scope/tripod	169.99

LENSES (not for 31034)

93213	1.25" 2x economy Barlow lens D	$ 9.99
93308	1.25" 6mm ocular Plossl lens D	49.99
93310	1.25" 10mm ocular Plossl lens D	49.99
93312	1.25" 17mm ocular Plossl lens D	49.99
93507	1.25" 2x deluxe Barlow lens D	59.99
94303	Plossl lens/filter kit w/carrying case	269.99
51630	Star pointer finderscope	30.99
93590	Red Astro Lite flashlight	5.99
93700	CD-ROM "The Sky for Celestron"	29.99
93720-40	Planisphere & planet finder D	9.99
93722	Sky Map	19.99
94118-S1	1.25" eyepc filt set; 21/80A/ND-13/polar D	69.99
94119-A	1.25" moon filter	15.99
94126-A	Model A LPR filter; for 1¼" eyepieces	69.99
94301	Starter kit Δ	69.99

Sorry, no exports on Celestron products.

CENTAUR (CEN)

B11W10-50	1:1 3kw PEP balun for dipole	$ 54.99
B11Y10-50	1:1 3kw PEP balun for yagi	54.99
B41Y10-50	4:1 3kw PEP balun for yagi	69.99
B41LW10-50	4:1 ladder line to coax balun	69.99

Channel Master (CHA)

9521A	Prog light duty rotor/IR rem cont/3-wire	$ 99.99

CLOCKS

BMI 972AD	14" 12/24-hour wall clock	$ 32.99
BMI 973A	12" 24-hour wall clock	49.99
MFJ 105C	24-hour quartz wall clock	19.99
MFJ 107B	24-hour digital clock	9.99
MFJ 108B	24/12-hour dual disp digital clock	19.99
MFJ 112B	Deluxe world map clock	24.99
MFJ 113	24/12-hr 1.8" LED clock/batt back-up	19.99
MFJ 115	DX'er 24-hr analog world wall clock	24.99
MFJ 116DC	12-hour 12vdc LED clock Δ	9.99
MFJ 118	Giant 24/12 hour LCD clock	24.99
MFJ 123	Eternity solar atomic clock	79.99
MFJ 125	Calendar 24-hour analog wall clock	29.99
MFJ 152B	Thermo clock; in/out temp/12/24-hr D	24.99
ORE BA-812E	The weather clock D	19.99
ORE JMR-828	Jumbo atomic clock w/rem temp D	69.99
ORE RM-116E	Exactset radio controlled clock	39.99

COAX SEAL (UNV)

104	½" x 60" coax seal	$ 3.99

Coaxial Dynamics (COA)

81000-A	Wattmeter w/SO-239s	$260.99
83000-A	Peak reading wattmeter w/SO-239s	393.99
82004	50w 2-30MHz element	87.99

Coaxial Dyn - continued

		AES Price
82005	100w 2-30MHz element	87.99
82006	250w 2-30MHz element	87.99
82007	500w 2-30MHz element	87.99
82008	1000w 2-30MHz element	87.99
82009	2500w 2-30MHz element	125.99
82010	5000w 2-30MHz element	125.99
82013	10w 25-60MHz element	71.99
82014	25w 25-60MHz element	71.99
82015	50w 25-60MHz element	71.99
82016	100w 25-60MHz element	71.99
82029	10w 100-250MHz element	71.99
82031	50w 100-250MHz element	71.99
82033	250w 100-250MHz element	71.99
82046	10w 400-1000MHz element	71.99
82048	50w 400-1000MHz element	71.99
82049	100w 400-1000MHz element	71.99
88000	N female quick match connector each	9.99
88800	Carrying case for meter	55.99

COBRA (COB)

18WX ST	Sound Tracker AM Mobile CB w/WX D	$ 49.99
25NW ST	Night Watch Sound Tracker AM Mob CB D	79.99
19DX III	AM Mobile CB	49.99
19LTD II	AM Mobile CB	54.99
21LTD ST	Sound Tracker AM Mobile CB	74.99
25LTD	(25LTD Classic) AM Mobile CB	89.99
25WXNW ST	Night Watch Sound Tracker AM Mob CB/WX	109.99
29LTD	(29LTD Classic) AM Mobile CB	99.99
29NW	Night Watch AM Mobile CB	119.99
29WXNW ST	Night Watch Sound Tracker AM Mob CB/WX	129.99
75WX ST	Sound Tracker AM Mobile CB w/WX	99.99
HH-37 ST	Sound Tracker handheld CB	59.99
HH-Road Trip	Sound Tracker HH CB/WX/mag ant	79.99
148NW ST	Night Watch Sound Tracker SB/AM Mob CB	179.99
HGA-1000	Magnet mt CB antenna	19.99
HGM-77	Noise canx/amplified mobile mic	29.99
FRS-200	Family radio service handheld D	14.99
PR-950-2DX*	22ch 2w GMRS/FRS HH pair	99.99

*$20 consumer rebate from Cobra thru 12/31/03!

COMET (CMT)

MOBILE ANTENNAS

B-10	2m/440 2.15db 12" cell look-alike ant	$ 39.99
B-10NMO	2m/440 2.15db 12" cell look-alike NMO	39.99
C-757	2m/440 2.15/5.5db 38" foldover ant	54.99
C-757NMO	2m/440 2.15/5.5db 38" foldover NMO	54.99
C-767	2m/440 3.5/6db 40" foldover ant	59.99
C-767NMO	2m/440 3.5/6db 40" foldover NMO	59.99
CA-2X4SR	2m/440 3.8/6.2db 40" mob ant	64.99
HA-050	6m 33" ¼ wave mobile antenna	72.99
HP-32	2m/440 3/5.5db 34" 350/250w ant	89.99
M-24B	2m/440 1.7/4.1db mag mt ant w/BNC	39.99
M-24M	2m/440 1.7/4.1db mag ant w/PL259	39.99
SBB-1	2m/440 1.5/2.15db 16" flex mobile	39.99
SBB-1NMO	2m/440 1.5/2.15db 16" flex NMO	39.99
SBB-2	2m/440 2.15/3.8db 18" black mobile	39.99
SBB-2NMO	2m/440 2.15/3.8db 18" blk NMO	39.99
SBB-5	2m/440 3/5.5db 38" black mobile ant	54.99
SBB-5NMO	2m/440 3/5.5db 38" black NMO	54.99
SBB-7	2m/440 4.5/7.2db 4' 7" black mob ant	74.99
SBB-7NMO	2m/440 4.5/7.2db 4' 7" blk NMO	74.99
SB-14	6m/2m/440 43" chrome mobile ant	64.99
SB-15	6m/2m/440 2.15/4.5/7.2db 5' chr mob	79.99
SBB-25	2m 4.1db black mobile antenna	44.99
SBB-25NMO	2m 4.1db black NMO mob ant	44.99
SB-97	2m/440/1.2 3/6.8/9.6db 39" type N	79.99
SB-123	1.2GHz 7.2db 24" type N mobile ant	49.99
SBB-224	2m/220/440 2.15/3.2/5.5 blk mob	74.99
SBB-224NMO	2m/220/440 2.15/3.2/5.5 blk NMO	74.99
SF-245	2.4 GHz 7db 18" fg type N ant	69.99
UHV-4	10/6/2/440 54" mobile ant; FT8900R	109.99
UHV-6	40/15/10/6/2m/440 7' 2" mobile ant	149.99

Comet - continued

		AES Price
L-3.5	80m loading coil for UHV-6	34.99
L-14	20m loading coil for UHV-6/CA-HV	29.99
L-18	17m loading coil for UHV-6/CA-HV	29.99
Z-750	2m/440 2.1/5.5db 39" theft resistant D	59.99

MOBILE MOUNTS

3D4M	Mobile mt, 13' coax w/UHF connectors	$ 24.99
3D4N	Mobile mt, 13' coax w/type N	28.99
3D5M	Mobile mt, 16.5' coax w/UHF connectors	27.99
5D4N	Roof mount, 13' coax w/type N	31.99
AD-10N	NMO mount to female N adapter	17.99
AD-15M	NMO mount to SO-239 adapter	17.99
AD-25M	SO-239 to NMO mount adapter	14.99
CK-3M	Dlx 2-step 10' cable w/UHF connectors	33.99
CK-3M5	Dlx 2-step 16.5' cable w/UHF connects	39.99
CK-5N	Dlx 13' cable assembly w/type N	47.99
CM-5M	Hvy duty mag mt, coax, max 4' ant	24.99
CP-5-3/8-24	HD ⅜-24 mt (RS-730) w/16.5' coax	66.99
CP-5M	Hvy duty UHF mt (RS-730) w/16.75' coax	66.99
CP-5NMO	Hvy duty NMO mt (RS-730) w/16.5' coax	66.99
CQ-5M	Dlx black QD trunk lip mt/17' coax D	66.99
CQ-5N	Dlx black QD tnk lip mt/17' coax/N D	59.99
CR-5M	Std coax assy, 16.5' coax, UHF conn	19.99
CT-5M	Trunk lip mount w/16.5' coax	39.99
GR-5M	Dlx tnk lip mt w/ coax; matches SB	67.99
RS-9	Trunk lip mount, no coax	11.99
RS-520	Mini heavy duty trunk/hatch mount	28.99
RS-560C	Luggage rack mount, no coax	35.99
RS-720	Hatch/rear door/tnk multi-adj mt	28.99
RS-720NMO	Hch/rear door/tnk multi-adj NMO mt	28.99
RS-730	HD rear van/SUV door/tnk lip mt, no coax	29.99
WS-1M	Window clip mt w/UHF connectors	59.99

BASE STATION ANTENNAS

CA-712EF	440 9db 10' 5" base antenna	$109.99
CA-ABC22A	2m 6,5db 9' 5" base/rptr ant	69.99
CA-ABC23	2m 7.8 db 13' 4" base/rptr ant	99.99
CA-F72GF	440-470 6db 3' 6" tunable ant	109.99
CA-52HB4	6m 4 el 10.4db 10' 6" boom beam	119.99
CX-333	2m/220/440 6.5/7.8/9db 10.25' ant	179.99
CYA-1216E	1.2GHz 16el 16.6db 4' 5" bm N beam	139.99
CYA-2412	2.4GHz 12el 15.5db 2' 6" bm N beam D	129.99
DS-15	6m/2m/440/900/1.2 discone ant D	79.99
DS-150S	6m/2m/440/900/1.2 discone/60' coax	99.99
GH-50	6m 2.15db 7' 10" fg base antenna	99.99
GP-3	2m/440 4.5/7.2db 5' 11" base/rptr ant	99.99
GP-6	2m/440 6.5/9db 10' 2" base/rptr ant	149.99
GP-9	2m/440 8.5/11.9db 17' 8" base/rptr	179.99
GP-9N	2m/440 8.5/11.9db 17' 8" N base/rptr	179.99
GP-15	6/2m/440 3/6.2/8.6db 7' 11" base	154.99
GP-21/CA-1221S	1.2 14.8db 8' N base/rptr	149.99
GP-24	2.4GHz 12.4db 5' 11" N base/rptr	179.99
GP-24S	2.4GHz 9.9db 3' 7" N base/rptr Δ	99.99
GP-98	2m/440/1.2 6.5/9/13.5db 9' 8" N ant	189.99
KP-20	900 MHz 9.2db 7' 4" type N base/rptr	112.99
PYA-913	900MHz 13el 15.8db 4' 8" type N beam	149.99

DUPLEXERS AND TRIPLEXERS

CF-142	1.3-150/200-480 600/400w UHF/leads	$ 69.99
CF-360A	1.3-30/50-470 600w UHF w/leads	69.99
CF-360B	1.3-30/50-470 600w UHF/common lead	69.99
CF-416A	2m/440 800/500w UHF w/leads	46.99
CF-416B	2m/440 800/500w UHF/N w/leads	46.99
CF-416C	2m/440 800/500w N/UHF/N leads	49.99
CF-416W	1.3-250/400-1400 400/200w N/leads	69.99
CF-530	1.3-90/125-470 600w UHF w/leads	69.99
CF-530C	Backwards duplexer for FT-8900R	69.99
CF-706A	1.3-56/75-470 350w UHF w/leads	69.99
CF-4160I	2m/440 800/500w UHF/UHF/N, no leads	45.99
CF-4160J	2m/440 800/500w SO239, no leads	53.99
CF-4160K	2m/440 800/500w all UHF, no leads	45.99
CFX-324A	2m/220/440 600w UHF w/leads	88.99
CFX-324B	2m/220/440 600w UHF, no leads	85.99
CFX-514	HF/2m/440 800/800/500w UHF w/leads	79.99

Comet - continued AES Price

CFX-514J HF/2m/440 800/800/500w UHF, no leads 74.99
CFX-514N HF/2m/440 800/800/500w UHF/N w/leads 79.99
CFX-4310C 1.3-150/440/1.2 triplexer, no leads 79.99
CFX-5140 HF/6m/2m/440 800/800/500w UHF, no leads 74.99

HT & HANDHELD SCANNER ANTENNAS

BNC-24 2m/440 17" 2.15/5.3db BNC whip ... $ 22.99
CH-32 2m/440 1.75" BNC Miracle Baby ant . 29.99
CH-75 2m/440 0/3.2db 14.75" BNC ant 25.99
CHF-412 40/15/2m 28" BNC duck; FT-817 .D 49.99
CHF-816 80/10/6m 28" BNC duck; FT-817 .D 59.99
HM-05 18" BNC male - SO-239 adapter/cable 9.99
HS-05 18" SMA male - SO-239 adapter/cable 9.99
HT-224 2m/220/440 11" SMA antenna 47.99
SH-55 2m/440 1.5/3.2db 15" BNC ant 33.99
SH-95 2m/440/1.2 1.5/2.15/5.5db BNC ant . 34.99
SMA-3 2m/440 1.2/1.7db 9.75" SMA ant 39.99
SMA-24 2m/440 17" 2.15/5.3db SMA whip ... 22.99
SMA-501 2m/440/900 1.5" SMA antenna 29.99
SMA-503 2m/440 8.75" SMA antenna 29.99
SMA-703 2m/440/1.2GHz 6.5" SMA ant 31.99

Comm Outfitters (COF)

EXP-1 Expedition Pack for Yaesu FT-817 ..... $ 99.99

COMM-SPEC (COM)

ID-8 Automatic morse station identifier ..... $ 69.99
SS-64 64-tone mini prog CTCSS encoder 28.99
TE-32 32-tone CTCSS prog encoder box 49.99
TS-64DS 64-tone CTCSS prog encoder/decoder 57.99

CONNECTORS

AMPHENOL COAX CONNECTORS (AMP)

83-1SP-1050 Male coax plug (PL-259) ..... $ 1.99
83-1SP Silver plated coax plug (PL-259) 2.99
Van Gorden (**VAN**) **silver plated** teflon PL-259 2.99
83-185 Reducer for RG-58 (UG-175) ..... .99
83-168 Reducer; RG-59/RG-8X (UG-176) .. .99
83-1AP Right angle adaptor (UG-646) 8.99
83-1J Double female adaptor (PL-258) 6.99
83-1R Female chassis mt socket (SO-239) ... 3.99
83-1H Hood; in-line use w/83-1R (UG-106) Δ 2.99
83-1T T-connector adaptor (M-358) 11.99
83-877 Double male adaptor 12.99
83-878 Single hole ⅝" chassis socket 2.99
31-002 BNC male connector for RG-58 ..... 4.99
31-012 BNC male connector; RG-59/RG-8X .. 7.99
31-221 BNC female chassis socket 2.99
82-24 Type N female chassis mt socket 7.99
82-61 Type N male connector for RG-8 ..... 8.99
82-64 Type N right angle adaptor .....† 12.99
(VAN) **N connector** Type N connector for 9913 4.99
82-202-1006 Type N male; 8214/9913/9913F . 7.99
82-209 Type N female in-line for RG-8 ..... 9.99
34025 Type N male connector for RG-58 ..... 8.99

AMPHENOL COAX ADAPTORS (AMP)

2900 SO-239 to BNC male adaptor ..... $ 14.99
4400 SO-239 to type N male adaptor 14.99
31-28 BNC female to PL-259 adaptor 16.99
(HOU) **SMA-872** SO-239 to SMA plug adaptor 5.99

AIM CONNECTORS, PLUGS & ADAPTORS (AIM)

19-1289 8-pin female mic plug .....D $ 4.99
(PHI) **61-608B** 8-pin female mic plug 4.99
25-7351 Chassis mt SO-239 double female . 3.99
25-7365 BNC female to SO-239 ..... 3.99
25-7420 BNC male to SO-239 ..... 2.99
26-8010 Type N double female 3.99
26-8011 Type N chassis mount 2.99
26-8015 N male to SO-239 ..... 4.99
26-8016 BNC female to N male 4.99
26-8017 BNC male to N female 4.99
26-8027 N male for RG-8X 4.99
27-8120 BNC female to PL-259 ..... 2.99

Connectors - continued AES Price

27-8130 BNC double male 3.99
27-8140 BNC T; 2 female, 1 male 2.99
27-8142 BNC T, 3 male .....Δ .49
27-8450 BNC chassis mt, 4 screw holes 2.99
27-8460 ¾" hole BNC chassis mt .....Δ .99
27-8470 Dual BNC chassis mount 3.99
29-3855 BNC female to SMA male 3.99
29-4140 SO-239 to mini PL-259 ..... 2.99

VANCO MICROPHONE CONNECTORS (VCO)

CBC-2P Panel mt 2-pin male .....Δ $ .09
CBC-3 3-pin female mic plug .....Δ .49
CBC-3P Panel mt 3-pin male .....Δ .09
CBC-4 4-pin female mic plug 4.99
CBC-4P Panel mt 4-pin male .....Δ .49
CBC-5 5-pin female mic plug 3.99
CBC-5P Panel mt 5-pin male .....Δ .09
CBC-6 6-pin female mic plug 4.99
CBC-6P Panel mt 6-pin male .....Δ .09
(AIM) **19-1289** 8-pin female mic plug 4.99
CBC-8P Panel mt 8-pin male 5.99
P-5D 5-pin DIN plug .....Δ .19

KENWOOD DIN PLUGS (KEN)

7-pin DIN plug ..... $ 4.99
8-pin DIN plug 6.99
13-pin DIN plug 9.99

VANCO Mic Holders/Mini Plugs/Cig Plugs (VCO)

MH-1 Magnetic mic holder ..... $ 1.69
MH-2 Regular mic holder 1.49
P-25 2.5mm sub-miniature phone plug .....Δ .05
P-35 3.5mm miniature phone plug ..... .69
(HOU) **AP-115** ¼" metal stereo plug 2.99
(HOU) **AP-135** 3.5mm stereo mini phone plug .99
P-12R 2-contact cigarette plug 1.99
P-12V Cig lighter plug w/leads 1.99
P-212 2-outlet cigarette plug adapter 4.99
P-212B Dual cigarette lighter socket adapter 8.99

Connect Systems (CSY)

CS-800 Full duplex patch & repeater controller $369.99
CS-900 Simplex interconnect 369.99

CROSS DEVICE (CRS)

STUF Coax connector waterproofing filler ..... $ 4.99

CUSHCRAFT (CUS)

At Cushcraft's request, amateur radio dealers are not authorized warranty depots for Cushcraft Antennas. All warranty issues should be directed to the Technical Support Department/Warranty at Cushcraft (603) 627-7877.

VHF/UHF FM BEAMS* (Vertical polarization)

A148-3S 2m, 3 el wideband beam, 7.8db .... $ 62.99
A148-10S 2m, 10 el wideband beam, 13.2db 99.99
A449-6S 440 MHz, 6 el, 3' boom, 10 db 58.99
A449-11S 440 MHz, 11 el, 4.5' boom, 13 db . 79.99
*Antennas can be mounted vertically or horizontally!

2M/440 FM BEAMS* (Vertical polarization)

A270-6S 2m/440, 3/3 el, 2.8' boom, 7.8 db .. $ 79.99
A270-10S 2m/440, 5/5 el, 6.17' boom, 10 db 99.99
*Antennas can be mounted vertically or horizontally!

TRI-BAND 6M/2M/440 BEAMS

A6270-13S 6m/2m/440, 3/5/5el, 8.66'bm, 8/10/10db $179.99
ASL-670 50-450MHz 14el 6.7' boom 6db LP . 249.99

FM RINGOS - 1/2 Wave Verticals

AR-10 10m FM Ringo, 17.6', 3db, 1000w ..... $ 79.99
AR-6 6m FM Ringo, 10.1', 3db, 1000w 79.99
AR-2 2m FM Ringo, 3.9', 3db, 1000w 49.99
AR-450 440MHz FM Ringo, 1.4', 3db, 500w .. 36.99

RINGO RANGERS - FM Verticals

ARX-2 2m FM Ringo Ranger ..... $ 59.99
ARX-2B 2m FM Ringo Ranger II, 14', 7db, 1000w 69.99
ARX-220B 220 FM Ringo Ranger II, 9.3', 7db, 500w 69.99

Cushcraft - continued AES Price

ARX-450B 440FM Ringo Ranger II, 4.9', 7db, 500w 69.99

DUAL-BAND 2M/440 FM RINGOS

AR-270 2m/440MHz FM, 3.75', 3/5.5db, 250w $ 94.99
AR-270B 2m/440 MHz FM, 7.7', 5.5/7.5db, 250w 99.99

TWIST, OSCAR BEAMS (Horiz/Vert Polarization)

A148-20T 2m 20el 10.8'bm 11.1db twist $139.99
719B 432 19 el 13.5' boom 15.5db 149.99

BOOMER ANTENNAS

124WB 2m Boomer, 4 el, 4' boom, 10.2 db ... $ 89.99
13B2 2m Boomer, 13 el, 15' boom, 15.8 db .. 149.99
17B2 2m Boomer, 17 el, 31' boom, 18 db 239.99
26B2 2 13B2s vertically stacked 399.99
224WB 220 Boomer, 4 el, 3' boom, 10.2db ... 74.99

BOOMER POWER DIVIDERS

PD-2 Power divider for 2 13B2s ..... $ 64.99
PD-4 Power divider for 4 13B2s 79.99

VHF/UHF BEAMS* (Horizontal polarization)

A50-3S 6m, 3 el, 6' boom, 8 db, stainless hdwre $114.99
A50-5S 6m, 5 el, 12' boom, 10 db, stainless hdwre 179.99
A50-6S 6m, 6 el, 20' boom, 11db, stainless hdwre 289.99
A148-10S 2m, 10 el wideband beam 99.99
A430-11S 430 MHz, 11 el, 4' boom, 13 db 79.99
*Antennas can be mounted vertically or horizontally!

MOBILE ANTENNAS

CS-28M 10m magnet mt antenna ..... $ 64.99
CS-50M 6m magnet mt 3 db antenna 64.99
CS-147M 2m magnet mt 3 db antenna 64.99
CS-147A 2m coil & whip only 46.99
CS-220M 220 magnet mt 3 db antenna 64.99
CS-450M 440 magnet mt 5 db antenna 64.99

DUAL-BAND 2M/440 MOBILE ANTENNAS

CS-270M 2m/440 3.7/6 db magnet mt ant .. $ 84.99
CS-270A 2m/440 coil & whip only 59.99

MOUNTS ONLY FOR MOBILE ANTENNAS

CS-MG Magnetic mount ..... $ 30.99
CS-MGN Magnetic mount w/N connector 35.99
CS-TL Trunk lip mount 30.99

MULTIBAND HF VERTICAL ANTENNAS

MA-5V 20/17/15/12/10m 14.7' vertical ant .. $199.99
MA-6V 20/17/15/12/10/6m 14.7' vertical ant 239.99
R-6000 20/17/15/12/10/6m 19' vertical 319.99
R-8 40/30/20/17/15/12/10/6m 28.5' vert 469.99
R-8GK Guy kit for R-8 ..... 49.99

ROTATABLE HF DIPOLES

D-3 20/15/10m World Ranger dipole $229.99
D-3W 30/17/12m rotatable dipole 229.99
D-4 40/20/15/10m World Ranger dipole 339.99
D-40 40m World Ranger dipole 289.99

BIG THUNDER HF TRI-BAND BEAM

X-7 20/15/10m, 7 el, 18' boom, 12.5/13db .. $649.99
X-740 40m add-on kit for X-7 ..... 319.99

BIG THUNDER HF MONOBAND BEAM

XM-240 40m, 2 el, 23' boom, 7 db $699.99
TEN-3 10m, 3 el, 8' boom, 8 db 199.99

MULTIBAND HF BEAM ANTENNAS

A-3S 20/15/10m, 3el, 14'bm, 8db, stainless hdwr $429.99
A-743 40m or 10 MHz add-on kit; A-3/A-3S 169.99
A-4S 20/15/10m, 4el, 18'bm, 8.9db, stainless hdwre 529.99
A-744 40m or 10 MHz add-on kit; A-4/A-4S 169.99
A-3WS 17 & 12m, 3 el, 14' boom, 8 db 349.99
A-103 30m add-on kit for A-3WS 169.99
ASL-2010 13.5-32MHz 8el 18' bm 6.4db LP . 729.99
MA-5B 20/17/15/12/10m 7.3' boom mini beam 329.99

LIGHTNING ARRESTORS

LAC-4 200w SO-239 gas tube arrestor ..... $ 40.99
LAC-4H 2kw SO-239 gas tube arrestor 45.99
LAC-4N 200w type N gas tube arrestor 52.99
LAC-4NH 2kw type N gas tube arrestor 56.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Cushcraft - continued

	AES Price
LC-2 Extra 200w cartridge for LAC-4/4N	17.99
LC-2KW Extra 2kw cartridge for LAC-4H/4NH	20.99
5VB Vinyl connector boots ....pack of 5	15.99

Cutting Edge (CUT)

POWER PORT

HI-D1 Radio glove; Ali DJC5T/DJX2T/Yae VX1R	$ 19.99
HI-5X Radio glove; Ico IC-Q7/R-2/Yae FT-11	19.99
HI-51 Radio glove; Yaesu VX-5R	19.99
HI-6 Radio glove; ADI PR52/Ali S11/V5/Ico T81/Yae FT50	19.99
HM-817 WorldPouch; Yaesu FT-817	73.99
HMP-II WorldPack II backpack; mini HF Xcvr	67.99
HP-7AF 7AH gel-cell w/2.5 hr fast cgr ....D	59.99
HP-8AF 8AH gel-cell w/2.5 hr fast cgr	129.99
HPP-7A 7AH gel-cell w/overnight cgr ....D	29.99
HPP-8A 8AH gel-cell w/overnight cgr	73.99
PPMMDC Multi-tip/volt reg DC-DC adapt ....Δ	9.99
PPSCA Solar cell cigarette adapter	10.99

DCI (DCI)

145-2H 2m 144-146MHz 200w bandpass filter	$ 99.99
146-4H 2m 144-148MHz 200w bandpass filter	99.99
223.5-3H 222-225MHz 200w bandpass filter	109.99
2m/220 models w/N connectors add $10 special order	
435-10C 430-440MHz 200w N bandpass filt	119.99
445-10C 440-450MHz 200w N bandpass filt	119.99
146/444-DB 144-148/438-450 200w bp filter	169.99

DC SALES (DCS)

Tenna Hitch ⅜-24 trailer hitch antenna mt	$ 38.99

DAIWA (DAI)

CN-101 1.8-150 15/150/1.5kw SWR/pwr meter/light	$ 99.99
CN-103M 140-525 20/200w SWR/power meter	99.99
CN-801H 1.8-200 20/200/2kw SWR/pwr meter	149.99
CN-801V 140-525 20/200w SWR/power meter	154.99
CS-201 2-position 600 MHz coax switch	26.99

DAVIS (DAV)

6150 Wireless Vantage Pro weather station	$539.99
7400 Perception II indoor WX unit	139.99
7425 Wizard III weather station	179.99
7440 Monitor II weather station	269.99
7852 Rain Collector II, 0.01"	69.99
7977 Electronic rain counter, 0.01" ....D	4.99
7859 External temp/humd Sensor II; 7440	119.99
7862 Weatherlink Win interface/software	149.99
7866 Weatherlink Mac interface/software	149.99
7870 Modem adapter for 7862/7866 ...Δ	1.99
7867 Weatherlink Mac to Win conv kit ....Δ	2.99
7868 Weatherlink Win to Mac conv kit ....Δ	2.99
7873 Cig lighter power cord	10.99
7876-040 4-conductor 40' extension cable	18.99
7878-040 6-conductor 40' extension cable	22.99
7880 8-conductor 25' junction box cable Δ	4.99
7881 8-conductor 50' junction box cable	25.99
7882 8-conductor 100' junction box cable	45.99
7890 Mast mount for anemometer	16.99
0131 Weather forecasting quick reference card	9.99
0271 Turbo Meter handheld dig wind indicator	139.99
0281 Wind Wizard handheld wind indicator	47.99

DIAMOND (DIA)

SWR/POWER METERS

SX-20C HF/6m/2m 30/300w meter	$ 89.99
SX-40C 144-470 (220 w/correction) 15/150w	79.99
SX-100 1.6-60 MHz 30/300/3kw PEP meter	134.99
SX-200 1.8-200 MHz 5/20/200w PEP meter	94.99
SX-400 140-525 MHz 5/20/200w PEP meter	114.99
SX-600 Dual band 1.8-160 /140-525 200w PEP mtr	169.99
SX-1000 1.8-160/430-1300MHz 200w PEP meter	214.99

Diamond - continued

HT & HANDHELD SCANNER ANTENNAS

RH-3 2m/440 1.75" BNC mini HT duck	$ 24.99
RH-77CA 2m/440 15" BNC rubber gain ant	24.99
RH-205 2m ⅝ wave telescopic HT antenna	24.99
RH-519 2m/440 8.3" flexible BNC whip	27.99
RH-707 2m/440 8¼" tiltable BNC whip	33.99
RH-951S 2m/440/1.2GHz 15" BNC slim duck	44.99
SRH-77CA 2m/440 15" SMA rubber gain ant	29.99
SRH-519 2m/440 8.3" flexible SMA whip	32.99
SRH-805 2m/440/1.2GHz 1.75" SMA ant	27.99
SRH-815 2m/440/1.2GHz 6" flex SMA whip	36.99
SRH-999 6m/2m/440/1.2GHz 20" SMA whip	59.99

MONO-BAND MOBILE ANTENNAS

HF-6FX 6m 2.15db 44" mobile antenna	$ 69.99
HF-50CX 6m 3.5db 71" mobile antenna	99.99
M-285 2m 3.4db 52.4" mobile antenna	31.99
M-685 6m 2.15db 52.4" mobile antenna	31.99
MG-200 2.4GHz 7db 23.6" N mobile ant	99.99
NR-2C 2m 4.1db 55.5" mobile antenna	39.99
NR-22L 2m 6.5db 96.8" mobile antenna	69.99
NR-124 1.2GHz 8.4db 25" N mobile antenna	64.99
SG-2000HD 2m 5.2db 62.6" 250w mob ant	89.99

DUAL-BAND MOBILE ANTENNAS

MR-77 2m/440 2.15/3.4db 20" magnetic ant	$ 39.99
MR-77SMA 2m/440 2.15/3.4db 20" mag w/SMA	44.99
NR-72BNMO Black 2m/440 2.15db 14" NMO	41.99
NR-73BNMO Blk 2m/440 2.15/5.5db 34" NMO	57.99
NR-770HA 2m/440 3/5.5db 40" mobile ant	56.99
NR-770HB Black 2m/440 3/5.5db 40" mobile	59.99
NR-770HNMO 2m/440 3/5.5db 40" NMO mobile	56.99
NR-770HBNMO Blk 2m/440 3/5.5db 40" NMO	59.99
NR-770RA 2m/440 3/5.5db 39" mobile ant	51.99
SG-M510 2m/440 2.15/5.5db 37" mob ant	59.99
SG-7000A 2m/440 2.15/3.8db 19" mobile	69.99
SG-7500A 2m/440 3.5/6db 41" mobile ant	79.99
SG-7500NMO 2m/440 3.5/6db 41" NMO ant	79.99
SG-7900A 2m/440 5/7.6db 62" mobile ant	114.99

TRI-BAND MOBILE ANTENNAS

CR-320A 2m/220/440 2.15/3.8/5.5db 36"	$ 89.99
CR-627B 6m/2m/440 2.15/4.5/7.2db 60" ant	99.99
CR-627BNMO 6m/2m/440 2.15/4.5/7.2db 60"	99.99
HV-7A 10/6/2m/440 54" UHF mount mobile ant	109.99
HVC-7 40m loading coil for HV-7A/MV-3A	44.99
HVC-14 20m loading coil for HV-7A/MV-3A	37.99
HVC-18 17m loading coil for HV-7A/MV-3A	37.99
HVC-21 15m loading coil for HV-7A/MV-3A	37.99
NR-2000NA 2m/440/1.2 3.15/6.3/9.7db 39" N mob	89.99
SG-M911 6m/2m/440 2.15/3/5.8db 41" mob	69.99

MAGNET MOUNTS

DPK-4NM-N Hvy dty mag mt, cbl, N, 45" max	$ 45.99
K-702M Hvy duty mag mt, 6¾" dia, 50" max	49.99
SPM-35 Hvy duty mag mt, cable, 45" max	39.99
SPM-NMO Hvy dty NMO mag mt, cbl, 45" max	44.99

TRUNK LIP MOUNTING KITS

K-200KM Folding hch/tnk mt/coax; NR/SG ..D	$ 44.99
K-400 Hatch/trunk mt; NR/SG antennas	39.99
K-400C Hatch/trunk mt w/coax; UHF mount	69.99
K-400CNMO Hatch/trunk mt w/coax; NMO mt	69.99
K-400S Hatch/trunk mt w/coax; UHF mt/SMA	79.99
K-400SNMO Hatch/trunk mt w/coax; NMO/SMA	79.99
K-400-3/8C Trunk mount w/6.5' cable; ⅜-24	69.99
C-110 10' extension cbl; K-400C/S//3/8C	14.99
K-412C Light duty hatch/tnk mt w/coax; UHF mt	59.99
K-412CNMO Light duty hatch/tnk mt w/coax; NMO	59.99
K-412S Light duty hatch/tnk mt w/coax; UHF/SMA	69.99
K-412SNMO Lt duty hatch/tnk mt/coax; NMO/SMA	69.99
C-110 10' extension cable for K-412 mts	14.99
K-600M Tilt angle trunk mt w/cable	57.99
K-601M SO-239 hideaway trunk mt, 6' coax	69.99
K-601NMO NMO hideaway trunk mt, 6' coax	69.99

Diamond - continued

	AES Price
C-110 10' extension cable for K-601 mts	14.99
K-604M Tilt angle trunk mt w/flexible cable	57.99
K-9000LRM Motorized luggage rack mount	109.99
K-9000TM Motorized trunk/hatchback mt	109.99

MIRROR & LUGGAGE RACK MOUNTS & KITS

K-540 Mirror/luggage rack mt; under 45"	$ 35.99
K-540KM Mirror/luggage rack mt w/coax	59.99
K-550* Luggage mt; new mini vans (use GLP)	44.99
K-550KM* Luggage mt w/SO-239 base/coax	69.99
*K-550 series not recommended for Yaesu ATAS-100	

MOUNTING GROUP HARDWARE

C-101 SO-239 mt, 6.5' RG-316 low-loss coax	$ 32.99
C-101NMO NMO mt, 6.5' RG-316 low-loss coax	32.99
C-104SMA 4' RG-58 ext cbl; SMA male & SO-239	16.99
C-105SMA 5' RG-58 ext cable; C-101/SMA male	16.99
C-110 10' ext cable; C-101/K-601/K-400-3/8C	14.99
C-110BNC 10' extension cable to BNC male	22.99
C-110SMA 10' RG-58 ext cable; C-101/SMA male	22.99
C-211 SO-239 mt, 6.5' coax, 10' coax entend	44.99
C-213 SO-239 mt, 13.5' RG-316 low-loss coax	41.99
C-213NMO NMO mt, 13.5' RG-316 low-loss coax	41.99
GLP-5N UHF mtg grp hrdwr; mini coax, Yae N D	1.99

MULTIBAND HF BASE VERTICAL ANTENNA

CP-6A 75/40/20/15/10/6m 200w PEP 16' vert	$299.99

MONO-BAND BASE STATION ANTENNAS

A-144S5 2m 5 el 37.5" boom 9db beam	$ 59.99
A-430S10 430 10 el 43" boom 13db beam	69.99
A-430S15 430 15 el 89" boom 14.8db beam	89.99
A-502HB 6m 2 el 2.6' boom 6.3db beam	99.99
A-504HB 6m 4 el 10.7' boom 10.8db beam	139.99
CP-22E 2m 6.5db 9' base antenna	54.99
DP-GH62 6m 6db 21' base antenna	139.99
F-22A 2m 6.7db 10.5' base antenna	99.99
F-23A 2m 7.8db 15' base antenna	119.99
F-23C1 148-154MHz 7.8db 15' comm base	173.99
F-718A 440 11.5db 15' type N base antenna	209.99
F-718L 420-430 11.5db ATV N base ant ... D	199.99
G-200 2.4GHz 11db 6' N base antenna	199.99
2400-Y12 2.4GHz 12db 8el 15"bm 25w N beam	129.99

DUAL-BAND BASE STATION ANTENNAS

U-200 440/1.2GHz 8.3/11.7db 6' N base ant	$129.99
X-50A 2m/440 4.5/7.2db 5.6' base antenna	99.99
X-50NA 2m/440 4.5/7.2db 5.6' base N ant	99.99
X-200A 2m/440 6/8db 8.3' base antenna	139.99
X-500HNA Hvy duty 2m/440 8.3/11.7db 17.8' N ant	239.99
X-510MA 2m/440 8.3/11.7db 17.2' base ant	184.99
X-510NA 2m/440 8.3/11.7db 17.2' type N ant	184.99
X-700HA 2m/440 9.3/13db 24' type base ant	399.99
X-700HNA 2m/440 9.3/13db 24' type N ant	399.99

TRI-BAND BASE STATION ANTENNAS

D-130J 25-1300 MHz 200w discone ant	$ 89.99
V-2000A 52-54MHz/2m/440 2.1/6.2/8.4db 8.3'	162.99
X-3200A 2m/220/440 6/7.8/8db 10' base	209.99
X-6000A 2m/440/1.2 6.5/9/10db 10.5' N	189.99

DUPLEXERS & TRIPLEXERS

MX-62M HF-6m &2m/440, 12" cables dplxr	$ 74.99
MX-72D HF-2m/440 400/150/100w duplexer	43.99
MX-72H HF-2m/440 duplexer w/12" cables	46.99
MX-72N HF-2m/440 dplxr, 440 type N, 12" cables	49.99
MX-214D 2m/220 150/100w dplxr, no cables	69.99
MX-324 2m/220/440 triplexer	99.99
MX-324D 2m/220/440 triplexer, no cables	99.99
MX-2000 HF-6m/2m/440 400/400/250w triplexer	84.99
MX-3000 HF-2m/440/1.2 400/200/100w triplexer	79.99

ACCESSORIES

CA-23RS DC-2500MHz 200w N lightning protect	$ 39.99
CA-23RW 2500MHz 200w N waterproof protect	44.99
CA-35R/RS DC-500MHz 400w lightning protect	29.99
CX-210A 1.5kw DC-1000MHz coax switch	44.99
CX-210N 1.5kw DC-1500MHz N coax switch	74.99

Diamond - continued

	AES Price
CX-310A HD 3-pos DC-800MHz coax switch .	83.99
DL-30A 15/100w peak 0-500MHz dummy load	27.99
DL-30N 15/100w peak 0-500MHz N dummy load	39.99
GZV-4000 Variable 40A switching ps/meter/spkr	179.99

DRAKE (DRA)

R-8B Shortwave receiver	1499.99
MS-8 1592 Speaker	59.99
1590 35-55, 108-174 MHz VHF converter ..	269.99
7852 R-8B technical manual	39.99
1334 Mobile mount kit for SW-1/SW-2 .....Δ	1.99
1591 Interface computer soft; original R-8 ..D	.99

ECG (ECG)

U-105 Light duty antenna rotor/3-wire	$ 69.99
TB-105 Thrust bearing	18.99

EASY-UP (UPS OK) (EAS)

EZ 29-24S Stainless double strap chimney mt	$ 17.99
EZ 48-3ABX 3' boxed tripod w/pitch pad kit .	24.99
EZ 48-5ABX 5' boxed tripod w/pitch pad kit .	34.99
EZ-516 5' 16 ga steel mast .....pick-up only	7.99

EMERSON (EME)

ESR-220 Solar/dynamo AM/FM radio/flashlight .	$ 29.99
EVO-6550 2nd 900MHz camera; EVO-6500 D	39.99
PDC-803/PMD-8030 Dig compass/LCD backlite	29.99
RP-005 6-func flashing safety strobe/reflector	6.99

GE (GEX)

72887 Super Radio III AM/FM radio, AC/DC ..	$ 49.99

GAP VERTICALS (GAP)

DX-VIII Challenger 75*/40/20/15/12/10/6/2m 31.5'	$299.99
*80m CW w/capacitor exchange from GAP	
Challenger Counterpoise	30.99
(SYN) **100'** 3/16" black double braided rope ..	6.99
DX-VI Eagle 40/20/17/15/12/10m 21.5' rigid	309.99
DX-IV Voyager 160/80/40/20m 45'; use 350' guy	419.99
Voyager Counterpoise	55.99
(SYN) **350'** 3/16" black double braided rope ..	39.99
Titan DX 75*/40/30/20/17/15/12/10m, 25' ..	339.99
*80m CW w/capacitor exchange from GAP	
100' Guy Kit with clamp	14.99
200' Guy Kit with clamp	22.99
Ground Mount Quick tilt mt for vertical ant .	79.99
Ladder Mount Quick tilt mt; campers/RVs	79.99
Hear It DSP noise eliminating speaker	159.99

GARMIN (GAR)

Geko-101 Small GPS receiver	$ 99.99
Geko-201 Small GPS receiver w/WAAS	139.99
GPS-12CX Color GPS receiver .....D	189.99
GPS-12XL GPS receiver	219.99
GPS-72 Handheld track-plotter GPS	159.99
GPS-III Plus Handheld/dash mt mapping GPS	299.99
GA-26C Low prof rem ant/cbl; GPSIII/III Plus	89.99
GA-27C Low prof rem ant/cbl; GPS-12CX/XL	89.99
010-10048-00 Mounting bracket; 12CX/XL .	31.99
010-10082-00 Power/data cable	27.99
010-10085-00 Cig lighter adapter cable ...	23.99
010-10111-00 Mtg bkt; GPS-III Plus	31.99
010-10117-01 Carying case .....D	9.99
010-10117-02 Carying case	12.99
010-10121-00 MCX-BNC adapt cbl; 12CX/XL	25.99
010-10141-00 PC interface cable	38.99
010-10165-00 PC cable w/cig adapter	45.99
010-10215-00 MapSource US CD;GPS-III Plus	99.99
StreetPilot 12 ch dash mt mapping GPS ...D	399.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10082-00 Power/data cable	27.99
010-10085-00 Cig lighter adapter	23.99
010-10141-00 PC interface cable	38.99

Garmin - continued

	AES Price
010-10165-00 PC cable w/cig adapter	45.99
010-10199-03 Carrying case .....D	9.99
010-10215-00 MapSource US road&rec CD	99.99
010-10215-03 MapSource MetroGuide CD .	99.99
010-10227-00 Blank 8MB memory cartridge	58.99
010-10232-00 Carrying case .....D	9.99
StreetPilot III Deluxe GPS	999.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10141-00 PC interface cable	38.99
010-10165-00 PC cable w/cig adapter	45.99
010-10227-00 Blank 8MB memory cartridge	58.99
eMAP Deluxe GPS/maping/8MB datacard/PC cbl	209.99
GA-27C Low profile remote ant/cable/MCX	89.99
010-10121-00 MCX to BNC adapter cable	25.99
010-10215-00 MapSource US road&rec CD	99.99
010-10215-03 MapSource MetroGuide CD .	99.99
eTREX 12 ch mini GPS receiver	119.99
eTREX Summit 12ch mini GPS/compass/barometric	249.99
$50 rebate on eTREX Summit from Garmin thru 7/6/03!	
010-10203-00 Cig lighter cbl; eMAP & eTREX	39.99
010-10205-00 Data cable; eMAP & eTREX	22.99
010-10206-00 PC interface cbl; eMAP & eTREX	38.99
NavTalk Analog cellular phone/GPS combo .D	249.99
010-10215-00 MapSource US road&rec CD	99.99
GPS-V Deluxe Turn-by-turn navigation GPS/soft	499.99
GA-26C Low prof remote ant w/cable/BNC	89.99
010-10082-00 Power/data cable	27.99
010-10111-00 Mounting bracket	31.99
010-10117-01 Carying case .....D	9.99
010-10117-02 Carying case	12.99
010-10165-00 PC cable w/cig adapter	45.99
010-10215-03 MapSource MetroGuide CD .	99.99
iQue-3600 Handheld PDA w/integrated GPS .	549.99
Rino-120 GPS/FRS/GMRS w/8mb mem/basemap	249.99
010-10117-02 Carying case; Rino-120	12.99

GEOCHRON (GEO)

World Watch Day/night Windows software ..	$ 49.99
Std Blk/Gold* Std black/gold trim world clock/map	999.99
$100 rebate from Geochron 5/1/03 thru 7/1/03!	
Std Oak/Gold* Std oak/gold trim world clock/map	999.99
$100 rebate from Geochron 5/1/03 thru 7/1/03!	

***These items are drop-shipped (shipped direct to you from the Geochron factory). On factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Redwood City, California via UPS, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on this special order item. Other Geochron models available on special order.**

GLEN MARTIN (GME)

TOWERS

M-1330A 30' alum tower package w/Hazer .T	1614.99
M-1340A 40' alum tower package w/Hazer .T	1831.99
M-1350A 50' alum tower package w/Hazer .T	2069.99
M-1840A 40' alum tower package w/Hazer .T	2149.99
M-1850A 50' alum tower package w/Hazer T	2409.99
M-1860A 60' alum twr pack w/Voyager Hazer T	3355.99
M-1870A 70' alum twr pack w/Voyager Hazer T	3659.99
ML-1800 Messenger line kit for GME towers ..	72.99
KB-1000 57" side arm; M-13 series	81.99
KB-1300 57" side arm; M-18 series	84.99
M-22 10' galv steel M-22 tower section	431.99
CHB-22 Footing assembly for M-22	260.99
B-22 Leveling base for M-22	379.99

ROOF-TOP TOWERS

RT-424 4.5' roof-top tower, anodized aluminum	$163.99
RT-832 8' roof-top tower, anodized aluminum	242.99
RT-936 9' roof-top tower, anodized aluminum	396.99

Glen Martin - continued

	AES Price
RT-1832 17.5' roof-top tower, anodized aluminum	531.99
RT-2632 26' roof-top tower, anodized aluminum	879.99
MC-10 Mast clamp; aluminum, 2 required	24.99
TB-25 Premium thrust bearing	89.99
LB-3755 Lag bolts, set of 8 3/8 x 5"	9.99
EL-3744 Concrete L-bolts, set of 8	14.99
RA-6024 24" side arm for roof towers	41.99
RA-6048 48" side arm for roof towers	54.99

HAZERS FOR ROHN TOWERS

H-2 Heavy duty aluminum Hazer system	$360.99
H-3 Standard duty aluminum Hazer system .	273.99
H-4 Heavy duty galv steel Hazer system	348.99
BW-8001 Brake winch for H-2/3/4	80.99
HR-2040 Roller bearing set for Hazers	64.99
HR-6010 T'X plates for H-2/3/4/5	26.99
HS-1301 Side arm for Hazers	64.99
ML-2500 Messenger line kit for Rohn towers	76.99
VH8-60 Voyager Hazer for 60' Rohn 45G	1409.99
VH8-70 Voyager Hazer for 70' Rohn 45G	1544.99
VH9-50 Voyager Hazer for 50' Rohn 55G	1329.99
VH9-60 Voyager Hazer for 60' Rohn 55G	1449.99
VH9-70 Voyager Hazer for 70' Rohn 55G	1564.99

LIGHTNING PROTECTION

LR-8400 Premium lightning rod kit	$ 99.99
GR-4400 Ground rod wire clamp	6.99
GR-5080 8' x 5/8" ground rod	20.99
TL-0470 Terminal lug	2.99
LR-8418 Lightning rod point, 18" long	38.99
LR-8452 Clamp for holding rod to 2" mast	25.99
LR-8451 Clamp for holding rod to 1 3/16" mast	24.99
CW-2540 25' #4 bare copper ground wire ..	20.99
CW-5040 50' #4 bare copper ground wire ..	41.99
CW-7540 75' #4 bare copper ground wire ..	59.99
CW-1040 100' #4 bare copper ground wire ..	66.99
CW-1240 125' #4 bare copper ground wire ..	98.99
CW-1540 150' #4 bare copper ground wire ..	118.99

GUYING

HP-3000 Kevlar guy cable, 3000# break strength per ft	$ .99
HP-4500 Kevlar guy cable, 4500# break strength per ft	1.49
HP-7500 Kevlar guy cable, 7500# break strength per ft	1.99
WR-125 1/8" galv 7 x 7 guy cable .....per ft.	.49
WR-380 3/8" galv 7 x 7 guy cable .....per ft.	.69
WRS-156 5/32" stainless 7 x 19 guy cable per ft.	.79
WRS-187 3/16" stainless 7 x 19 guy cable per ft.	.89
WRS-250 1/4" stainless 7 x 19 guy cable per ft.	.99
WR-1862 3/8" U-bolt clip (also for Kevlar 3000/4500)	1.69
WR-2565 1/4" U-bolt clip (also for Kevlar 7500)	1.69
WR-3164 5/16" U-bolt clip	1.99
PT-2500 1/4" heavy duty thimble (for all Kevlar)	2.69
PT-3100 5/16" heavy duty thimble	2.99
PT-3700 3/8" heavy duty thimble	3.39
H-165 1/4" end cap (for Kevlar 3000/4500) .	.79
H-164 5/16" end cap (for Kevlar 7500)	.89
H-142 3/8" end cap	.99
RG-4010 1/2" link connecting earthscrew to turnbuckle	8.99
ES-40 4" dia x 30" earth screw	22.99
EG-40 4" dia x 30" galvanized earth screw ..	33.99
ES-60 6" dia x 48" earth screw	39.99
EG-60 6" dia x 48" galvanized earth screw ..	55.99
ES-80 8" dia x 66" earth screw	68.99
TB-3806 3/8" x 6" galvanized turnbuckle	18.99
TB-5009 1/2" x 9" galvanized turnbuckle	24.99
TB-6212 5/8" x 12" galvanized turnbuckle	41.99

MASTS

M-1049 9' x 2" OD heavy duty galv steel mast	$ 79.99
M-1040 10' x 2" OD heavy duty galv steel mast T	84.99
MA-1040 10' x 1.92" OD medium duty alum mast T	94.99
MA-1049 9' x 1.92" OD medium duty alum mast	89.99
MA-2069 9' x 2.375" OD heavy duty alum mast	99.99
MA-1050 5' x 1.92" OD medium duty alum mast	61.99
MA-5050 5' x 1.31" OD light duty alum mast	41.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Glen Martin - continued

	AES Price
MP-1409 9' x 2" OD .250 wall xtra HD fg mast	129.99
MP-1809 9' x 2" OD .125 wall med dty fg mast	76.99
SIDE ARMS	
HS-2500 36" universal side arm mount	$ 65.99
HS-6000 52" universal side arm mount	78.99
WINCHES	
B-800 800 lb capacity w/4.5:1 gear ratio	$ 72.99
W-1100 1100 lb capacity w/3.9:1 gear ratio	42.99
B-2000 2000 lb capacity w/17:1 gear ratio	126.99
WA-1200 4000 lb electric winch, 115 vac	489.99
WD-1200 4000 lb electric winch, 12 vdc	448.99
W-6371 Pendant for 12 vdc	178.99
W-6372 Pendant for 115 vac	102.99
TOWER CLIMBING EQUIPMENT	
FP-5600 2 d-ring full body climbing harness (S-M)	$ 81.99
FP-5601 2 d-ring full body climbing harness (L-XL)	81.99
FP-5602 4 d-ring full body climbing harness (S-M)	99.99
FP-5603 4 d-ring full body climbing harness (L-XL)	99.99
FP-6600 6 d-ring full body climbing harness (XS)	272.99
FP-6601 6 d-ring full body climbing harness (S)	260.99
FP-6602 6 d-ring full body climbing harness (M)	260.99
FP-6603 6 d-ring full body climbing harness (L)	260.99
FP-6604 6 d-ring full body climbing harness (XL)	272.99
FP-2606 1"x6' web lanyard/dbl locking snaphooks	45.99
FP-2608 1"x8' web lanyard/dbl locking snaphooks	48.99
FP-2610 1"x10' web lanyard/dbl locking snaphooks	50.99
FP-2902 1"x2' web lanyard, ¾" throat, snaphooks	44.99
FP-2903 1"x3' web lanyard, ¾" throat, snaphooks	45.99
FP-2904 1"x4' web lanyard, ¾" throat, snaphooks	45.99
FP-2905 1"x5' web lanyard, ¾" throat, snaphooks	46.99
FP-2906 1"x6' web lanyard, ¾" throat, snaphooks	47.99
FP-2913 1"x3' web lanyard, ¾"&1⅛" throat openings	72.99
FP-2914 1"x4' web lanyard, ¾"&1⅛" throat openings	72.99
FP-2915 1"x5' web lanyard, ¾"&1⅛" throat openings	73.99
FP-2916 1"x6' web lanyard, ¾"&1⅛" throat openings	74.99
FP-2923 1"x3' web lanyard, ¾"&2½" throat openings	90.99
FP-2924 1"x4' web lanyard, ¾"&2½" throat openings	91.99
FP-2925 1"x5' web lanyard, ¾"&2½" throat openings	92.99
FP-2926 1"x6' web lanyard, ¾"&2½" throat openings	93.99

All GLEN MARTIN orders are plus freight at Glen Martin's rates direct to you from the factory. There is also a $75 residential address delivery charge on M-13 & M-18 series towers. We prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your order. Please allow sufficient delivery time. Most truck lines will not unload towers, so please be sure to have enough manpower and/or equipment on hand.

GROTHE (GRO)

VS-2 Emergency vehicle siren	$ 89.99
VS-2LS/A Window mt siren/amber halogen	299.99
VS-2LS/B Window mt siren/blue halogen	299.99
VS-2LS/R Window mt siren/red halogen	299.99
VS-3 Volunteer vehicle PA/horn w/spkr	129.99
VS-4 P/A emergency vehicle siren w/spkr	139.99

GRUNDIG (GRU)

eTraveller VII Mini AM/FM/SW Rcvr	$ 79.99
G-2000A Porsche design AM/FM/SW receiver	99.99
MiniWorld 100PE Mini AM/FM/SW receiver	29.99
S-350 AM/FM/SW receiver	99.99
Satellit 800 AM/FM/SW/LW/aircraft receiver	499.99
Yacht Boy 300PE Port AM/FM/SW/LW Rcvr	79.99
Yacht Boy 400PE Port AM/FM/SW/LW Rcvr/ps	149.99

HAL (HAL)

DSP-4100/2K HF DSP modem ....special order	1495.99
DXP-38 External DSP HF radio modem	395.99
RTTY-1 RTTY tuning indicator	99.99

HARGER (HRG)

	AES Price
GBIS18114AE ⅛" copper entrance ground bar kit	$ 27.99
GBIS18148AE ⅛" copper station ground bar kit	64.99
GEL3AE Package of 5 HD grounding lugs	15.99
GP1868.78AE ⅛" copper single pt gnd panel kit	54.99
GBX976AE NEMA-4x weatherproof enclosure	89.99

HEIL (HEI)

BM-5-4 Boom mic/single headset (HC-4)	$ 69.99
BM-5-5 Boom mic/single headset (HC-5)	69.99
BM-5-IC Boom mic/single headset/adapter; Icom	86.99
BM-10-4 Boom mic/headset (HC-4)	89.99
BM-10-5 Boom mic/headset (HC-5)	89.99
BM-10-IC Boom mic/headset/adapter; Icom	106.99
PRO-5-IC Bm mic/single headset/adapter; Icom D	89.99
PRO-SET-4 Deluxe boom mic/headset (HC-4)	130.99
PRO-SET-5 Deluxe boom mic/headset (HC-5)	130.99
PRO-SET-IC Dlx boom mic/headset/adapter; Icom	147.99
PRO-SET-PLUS Dlx boom mic/headset (HC4&5)	189.99
PRO-SET-PLUS-IC Dlx bm mic/hdset (HC4&5); Ico	206.99
AD-1-I Pro-Set 8-pin adapter cord for Icom	17.99
AD-1-K Pro-Set 8-pin adapt cord; Kenwood	17.99
AD-1-T Pro-Set 4-pin adapt cord; Ten-Tec	17.99
AD-1-Y Pro-Set 8-pin adapter cord; Yaesu	17.99
AD-1-I-M Pro-Set modular adapt cord; Ico	17.99
AD-1-K-M Pro-Set modular adapt cord; Ken	17.99
AD-1-Y-M Pro-Set modular adapt cord; Yae	17.99
Traveler-8PIC Bm mic/single headset; 8-pin Icom	89.99
Traveler-706 Boom mic/single headset; IC-706	89.99
Traveler-817 Boom mic/single headset; FT-817	89.99
Traveler-K Boom mic/single headset; Ken 8-pin	89.99
Traveler-KM Bm mic/sgl headset; Ken modular	89.99
FS-1 Foot switch D	30.99
FS-1M Foot switch w/modular plug; IC-706 D	30.99
FS-2 Dual switch foot switch	38.99
HS-1 Hand switch	25.99
HC-4 DX'ers 'dream machine' mic element	30.99
HC-5 Key microphone element	30.99
AD-100 Mic/boomset adapt; FT-100/AD-1Y/CC-1Y	25.99
ADM-Y817 Mic/boomset adapt; FT817/AD1Y/CC1Y	25.99
HMP-M In-line mic pre/mod plug; 706/MkII .D	29.99
GM-4 Goldline dual element studio mic w/HC-4	140.99
GM-5 Goldline dual element studio mic w/HC-5	140.99
GM-V Goldline vintage studio mic/matching xfmr	155.99
HCL-4 Classic 1930's desk mic/studio el & HC-4	229.99
HCL-5 Classic 1930's desk mic/studio el & HC-5	229.99
HM-10-4 Microphone with HC-4 element	65.99
HM-10-5 Microphone with HC-5 element	65.99
HM-10-Dual Mic w/HC-4 & HC-5 elements	115.99
HM-I Studio condensor microphone; Icom ..D	89.99
ICM Pre-PRO Icom electret mic w/cable	89.99
ADM-706 Adapter; HM-I - Icom 706/modular plug	25.99
CC-1-C 3/32" plug cable for Collins/Drake	33.99
CC-1-D 4-pin cable for Drake	30.99
CC-1-I 8-pin cable for Icom	30.99
CC-1-I-M Modular cable for Icom	30.99
CC-1-K 8-pin cable for Kenwood	30.99
CC-1-K-M Modular cable for Kenwood	30.99
CC-1-T Cable for Ten-Tec	30.99
CC-1-Y 8-pin cable for Yaesu	30.99
CC-1-Y-M Modular cable for Yaesu	30.99
PL-2 Proline boom	65.99
SB-1 Small adjustable mic boom w/C clamp	33.99
TB-1 Table base microphone stand	25.99
HMM-IC Condensor hand mic/8-pin plug; Icom	58.99
HMM-K Dual el hand mic/HC-4/8-pin plug; Ken	78.99
HMM-Y Dual el hand mic/HC-4/8-pin plug; Yae	78.99
Boom Clip for BM-series	5.99
Ear Pads for BM-series pair	5.99
Ear Pads for **PRO**-series pair	6.99

Heil - continued

	AES Price
Ham Radio Handbook	12.95
HD-AT 6db headph attenuator, ⅛"m-¼"f adapt	5.99
SM-1 Shock mount for any microphone boom	50.99
XT-1 Audio matching xfmr; lo-Z mic/tube Xcvr	15.99

HUSTLER (HUS)

RM-80 80m CW 400w PEP resonator	$ 26.99
RM-75 75m phone 400w PEP resonator	26.99
RM-40 40m 400w PEP resonator	24.99
RM-30 30m 400w PEP resonator	24.99
RM-20 20m 400w PEP resonator	21.99
RM-17 17m 400w PEP resonator	21.99
RM-15 15m 400w PEP resonator	15.99
RM-12 12m 400w PEP resonator	15.99
RM-11 CB 400w PEP resonator	15.99
RM-10 10m 400w PEP resonator	15.99
RM-80S 80m CW 2kw PEP resonator	49.99
RM-75S 75m phone 2kw PEP resonator	49.99
RM-40S 40m 2kw PEP resonator	35.99
RM-20S 20m 2kw PEP resonator	28.99
RM-15S 15m 2kw PEP resonator	24.99
RM-11S CB 2kw PEP resonator	23.99
RM-10S 10m 2kw PEP resonator	23.99
MO-1 54" mast for fender or deck mount	31.99
MO-2 54" mast for bumper mount	31.99
MO-3 54" no break-over mast	23.99
MO-4 22" mast for special applications	19.99
VP-1 Tri-band adapter	5.99
RSS-2 Resonator spring	9.99
QD-2 Stainless quick disconnect	19.99
L-14-144 12' RG-58, PL-259 to lugs	9.99
L-14-240 20' RG-58, PL-259 to lugs	12.99
STAINLESS 2" MOBILE BALL MOUNTS	
SSM-1 Ball & spring, cadmium hardware	$ 46.99
SSM-2 Ball, cadmium hardware	26.99
SSM-3 Stainless steel spring	24.99
1-1/2" MOBILE BALL MOUNTS	
C-32 Chrome plated ball	$ 11.99
C-30 Chrome plated spring	11.99
C-29 Stainless steel spring	17.99
BM-1 Single strap bumper mt w/C-32	21.99
3/8-24 THREAD MOBILE MOUNTS	
HLM Trunk lip mount w/swivel	$ 22.99
HOT Hustloff trunk lip mt w/swivel	23.99
MBM Super magnet mount w/16' coax	19.99
RVM Recreational vehicle mount	20.99
TLM Trunk lip mount	21.99
HF ANTENNAS	
4-BTV 40/20/15/10m 21' trap vertical	$119.99
5-BTV 80/40/20/15/10m 25' trap vertical	149.99
30-MTK 30m trap kit for 4-BTV/5-BTV	41.99
6-BTV 80/40/30/20/15/10m 24' trap vert	179.99
VHF/UHF BASE STATION ANTENNAS	
G3-144 2m 3db 7.5' vertical antenna	$ 63.99
G6-144B 2m 6db 10' vertical antenna	114.99
G6-270R 2m/440 6db 7.6' base station ant	159.99
G7-144 2m 7db 15' vertical antenna	159.99
G7-220 220 MHz 7db 10' vertical antenna	149.99
G6-440 440 MHz 6db 7' vertical antenna	139.99
VHF/UHF MOBILE ANTENNAS	
BBG-144 2m 3.4db NMO coil/whip only	$ 39.99
BBGT-144 2m 3.4db NMO trunk lip mt ant	49.99
BBG-440-5 440 5db NMO coil/whip only	39.99
BBGT-440-5 440 5db NMO trunk lip mt ant	49.99
BBL-144A 2m ¾" hole mt antenna, 3.4db	39.99
BBLT-144A 2m trunk lip mt ant, 3.4db	47.99
CG-144 2m ⅜-24 ant, 7' high, 5.2db	31.99
CGT-144 2m trunk mt ant, 7' high, 5.2db	51.99
CG-220 220 MHz ⅜-24 ant, 5.2db	29.99
CGT-220 220 MHz 5.2db tnk mt ant	49.99
LMB-144 2m 3.4db black NMO coil/whip only	22.99

Hustler - continued

	AES Price
LMB-440-5 440 5db black NMO coil/whip only	19.99
LMC-144 2m 3.4db NMO coil/whip only	19.99
LMC-270 2m/440 2.4/4db NMO coil/whip only	31.99
LMC-440-5 440 5db NMO coil/whip only	19.99
LMG-144 2m 3.4db NMO pushpin coil/whip only	25.99
LMG-440-5 440 5db NMO pushpin coil/whip only	19.99
MKR-2 Radial kit for CG/RX/SF-antennas	20.99
MX-2 2m 3db black & chrome NMO mag mt ant	34.99
MX-2B 2m 3db all black NMO mag mt ant	39.99
MX-220 220 3db blk & chrome NMO mag mt ant	34.99
MX-270 2m/440 2.4/4db chrome NMO mag mt ant	59.99
MX-440 440 5db blk & chrome NMO mag mt ant	36.99
MX-440B 440 5db all black NMO mag mt ant	36.99
RX-2 2m 3.4db magnetic mount ant	24.99
RX-220 220 3.4db magnetic mt antenna	24.99
RX-440 440 5db magnetic mt antenna	24.99
SF-2 2m ⅜-24 ant, 4' high, 3.4 db	14.99
SF-220 220 MHz ⅜-24 antenna, 3 db	14.99
THF 140-500 MHz ¼ wave trunk mount ant	23.99
UGM 140-500 MHz ¼ wave BNC mag mt ant	21.99
UHT-1 140-500 MHz ¼ wave roof mt ant	14.99

CB & MONITOR ANTENNAS

1C-11 White trunk mount CB antenna	$ 13.99
1C-11B Black trunk mt CB antenna	13.99
1C-100 White magnetic mount CB antenna	21.99
1C-100B Black magnetic mt CB antenna	21.99
DTG 25" fg double-talk gutter mt CB ant	39.99
FG-27S 48" CB whip	11.99
HQ-27 Power Packer ⅜-24 CB whip	17.99
HQ-27M Power Packer trunk mt CB antenna	36.99
HQD Dual fg mirror mount CB antenna	49.99
HQT Single fg mirror mount CB antenna	27.99
HTM-1 Twin Husky fg ant w/mirror mts .....D	19.99
RQM Magnetic mount CB antenna	19.99
RTG-27L 25" CB antenna w/rain gutter mt	26.99
RTM 25" magnetic mount CB antenna	16.99
RTS-27L 25" CB antenna w/roof mount	26.99
SCB/BLK 46" black CB whip	34.99
SCB/BLU 46" blue CB whip	34.99
SCB/RED 46" red CB whip	34.99
SCB/WHT 46" white CB whip	34.99
SCB-S/BLK 35" black CB whip	34.99
SCB-S/BLU 35" blue CB whip	34.99
SCB-S/RED 35" red CB whip	34.99
SCB-S/WHT 35" white CB whip	34.99
DCL Discone monitor ant/50' coax/Motorola plug Δ	14.99
DCL-B Discone monitor ant/50' coax/BNC plug	34.99
DCX Discone monitor ant; 40-700 MHz	23.99
MOR-B Roof/deck mt tri-band BNC monitor ant	18.99
MOT Trunk lip mt tri-band Motorola plug mon ant Δ	12.99
MOT-B Trunk lip mt tri-band BNC monitor ant	19.99
MRM-B Magnet mt tri-band BNC monitor ant	19.99

HY-GAIN (HYG)

190S RRK-88 Roof radial kit .....Δ	$ 19.99

HF BEAM ANTENNAS

LJ-103BA 3el 7.9db 8' boom 10m beam	$159.99
LJ-105CA 5el 10.8db 24' boom 10m beam	289.99
LJ-153BA 3el 7.9db 12' boom 15m beam	209.99
LJ-204BA 4el 8.2db 26' boom 20 or 17m beam	539.99
TH-3JRS 3el 600w PEP 20/15/10m beam	359.99
TH-3MK4 3el 8db 14' boom 20/15/10m beam	469.99
TH-5MK2 5el 8.3db 19' boom 20/15/10m beam	759.99
TH-7DX 7el 8.77db 24' boom 20/15/10m beam	869.99
BN-86 3-30MHz balun for HF beam	79.99

MULTI-BAND HF VERTICAL ANTENNAS

AV-14AVQ 40/20/15/10m 18' vertical ant	$169.99
AV-18HT HyTower 80/40/20/15/10m 53' vert T*	799.99
AV-620 20/17/15/12/10/6m 22.5' vertical	269.99
AV-640 40/30/20/17/15/12/10/6m 25.5' vert	359.99
DX-88 160/40/30/20/17/15/12/10m 25' vert	369.99

Hy-Gain - continued

	AES Price

VHF/UHF ANTENNAS

DB-218SAT VHF/UHF Oscar Link system	$559.99
VB-25FM 5el 11.2db 75" boom 2m beam	59.99
VB-64DX 4el 10.4db 12' boom 6m beam	144.99

***These items are drop-shipped (shipped direct to you from the Hy-Gain factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Starkville, Mississippi via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

ANTENNA ROTORS

AR-40 3 sq ft antenna rotor/5-wire	$269.99
CD-45-II 8.5 sq ft antenna rotor/8-wire	369.99
HAM-IV 15 sq ft antenna rotor/8-wire	529.99
HAM-V Digital 15 sq ft antenna rotor/8-wire	899.99
HDR-300A Hvy duty dig 25 sq ft rotor/8-wire	1229.99
T-2X Tailtwister 20 sq ft antenna rotor/8-wire	619.99
T-2XD Tailtwister dig 20 sq ft ant rotor/8-wire	979.99

OPTIONAL ACCESSORIES FOR ROTORS

DCU-1 Dig rotor control; CD-45/HAM-IV/T-2X	$619.99
MSHD Lwr mast support; HAM-IV/V/T-2X/XD	99.99
MSLD Lower mast support; CD-45-II/AR-40	39.99
TSP-1 Tower spacer plate	34.99

See BELDEN for rotor cable

iBOTZ (IBO)

MR-1001 Soundtracker robot kit	$ 29.99
MR-1002 Antoid robot kit	49.99

ICOM (ICO)

FL-102 6 KHz 9 MHz IF AM filter; 775DSP ...Δ	$ 79.99
MB-19 Rack mtg handles; IC-775DSP .....Δ	59.99
UT-66 Voice synthesizer; IC-775DSP .....Δ	69.99

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	AES Price
IC-756PRO II Xcvr/Rcvr/6m/IF-DSP/tuner/keyer	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
PS-125 ps FREE with IC-756PRO II! thru 6/30/03	
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
CT-17 CI-V level converter	139.99
HM-36 Scanning hand mic	74.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
RS-746 Win remote control software; IC-746 .D	69.99
IC-746PRO Xcvr/Rcv/6m/2m/IF-DSP/tuner/mic	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
PS-125 ps FREE with IC-746PRO! thru 6/30/03	
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
CR-338 High stability crystal unit	81.99
CT-17 CI-V level converter	139.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-30 Tone encoder; IC-707 .....Δ	49.99
IC-718 HF Xcvr/SW Rcvr/mic	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
UT-106 DSP FREE with IC-718! thru 6/30/03	

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ORLANDO 1-800-327-1917 • **LAS VEGAS** 1-800-634-6227

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	AES Price
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
AT-180 Auto coax antenna tuner; HF+6m	369.99
OPC-598 23' extension cable for AT-180	69.99
CR-338 High stability crystal unit	81.99
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-96 2.8 KHz 455 KHz IF SSB filter ....Δ	149.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
Suggest dealer installation of filters in IC-718	
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
OPC-025D Extra DC cable	29.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-7 Small external speaker	94.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP	149.99
IC-703 10w mini HF Xcvr/50 ohm tuner/DSP	CALL
IC-703 Plus 10w mini HF+6m Xcvr/tuner/DSP	CALL
AH-4 80-6m 120w auto wire ant tuner	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
HM-118TN TTP microphone	59.99
LC-156 Back pack carrying case	89.99
MB-62 Mounting bracket for main unit	25.99
MB-63 Mounting bracket for control panel	18.99
MB-65 Mounting base platform	35.99
MB-72 Carrying handle	14.99
OPC-581 11.5' separation cable	60.99
OPC-587 16' separation cable	79.99
OPC-599 7+8-pin to 13-pin adapter	60.99
OPC-742 13-pin cable	59.99
RMK-706 Package; MB-62/MB-63/OPC-581	70.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
OPC-589 8-pin to jack adapt; SM-6/8/20	35.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
IC-706 Mk II-G Mini Xcvr/Rcvr/6m/2m/440/DSP	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
RMK-706 FREE with IC-706 Mk II-G! thru 6/30/03	
(BET) **706 Tune Control** for IC-706-series	32.99
PS-125 25A switching power supply	299.99
AH-4 80-6m 120w auto wire ant tuner	269.99
AH-2B Whip w/mt; 40-6m use tuner	299.99
AH-2B extra **whip only**	119.99
AT-180 Auto coax antenna tuner; HF+6m	369.99
OPC-598 23' extension cable for AT-180	69.99
CR-282 High stability crystal unit; Mk II G	149.99
Suggest dealer install; CR-282, IC-706 Mk II-G	
CT-17 CI-V level converter	139.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	99.99
HM-118TN TTP microphone	59.99
MB-62 Mounting bracket for main unit	25.99

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	AES Price
MB-63 Mounting bracket for control panel	18.99
MB-65 Mounting base platform	35.99
MB-72 Carrying handle; Mk II-G only	14.99
OPC-025D Extra DC cable	29.99
OPC-581 11.5' separation cable	60.99
OPC-587 16' separation cable	79.99
OPC-599 7+8-pin to 13-pin adapter	60.99
OPC-742 13-pin cable	59.99
RMK-706 Package; MB-62/MB-63/OPC-581	70.99
SM-6 Desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
OPC-589 8-pin to jack adapt; SM-6/8/20	35.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
AH-710 1.9-30 MHz 80' folded dipole/98' coax	269.99
PW-1 160-15+6m linear amplifier/ps/tuner	CALL
OPC-137 Adapter cable; older Icom Xcvr Δ	19.99
UT-86 Tone squelch; IC-706 Mk II only ....Δ	69.99

RECEIVERS

R-2-06 .5M-1.3G AM/FM hand/batts/cgr/cell blkd D	$ 99.99
R-2-07* .5MHz-1.3GHz AM/FM hand Rcvr ..D	159.99
AD-92SMA SMA- BNC adapter	16.99
BC-127A Extra nicad charger	20.99
CS-R2 DOS programming software ....Δ	9.99
OPC-474 Cloning cable (R-2 to R-2)	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HHRX Win prog soft/cable; R-2/R-10	50.99
HP-4 Lightweight headphones	29.99
LC-146 Carrying case ....D	24.99
SP-13 Earphone	4.99
R-5-06 .15M-1.3G AM/FM hand/batts/cgr/cell blkd	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
R-5-11* .5MHz-1.3GHz AM/FM hand Rcvr .... *	189.99
***Price w/instant coupon; coupon expires 5/31/03**	
AD-92SMA SMA- BNC adapter	16.99
CP-18A Cig lighter cable	30.99
CS-R5 Win programming software	40.99
OPC-474 Cloning cable (R-5 to R-5)	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
HP-4 Lightweight headphones	29.99
LC-146A Carrying case	24.99
R-3-26 .5M-2.45G AM/FM/TV hand Rcvr/cell blkd	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
R-3-27* .5MHz-2.45GHz AM/FM/TV hand Rcvr	*479.99
***Price w/instant coupon; coupon expires 5/31/03**	
BC-135 Desktop charger w/adapter cup	80.99
BP-206 Extra 3.7v 1650ma lith ion batt	63.99
CP-18A Cig lighter cable	30.99
CS-R3 Win programming software	24.99
OPC-474 Cloning cable (R-3 to R-3)	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
HP-4 Lightweight headphones	29.99
LC-151 Carrying case	24.99
SP-13 Earphone	4.99
R-10-05 .5M-1.3G AM/FM/SSB hand/cell blkd	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
R-10-15* .5MHz-1.3GHz AM/FM/SB HH Rcvr	*289.99
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CP-12L Right angle cig cable w/filter	36.99
CS-R10 DOS programming software; R-10	13.99
OPC-474 Cloning cable (R-10 to R-10)	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HHRX Win prog soft/cable; R-10/R-2	50.99
CT-17 CI-V level converter	149.99
HP-4 Lightweight headphones	29.99
LC-140 Carrying case for R-10	38.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99

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	AES Price
PCR-100-08* .01-1300 PC controlled Rcvr ....D	*199.99
***Price w/instant coupon; coupon expires 5/31/03**	
BON CS-40 Bonito soft; PCR-1000-02/07 ..Δ	68.99
PCR-1000-02 BON PC Rcvr/Bon soft/cell blkd	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
PCR-1000-07 BON* PC Rcvr/Bonito soft ...	*354.99
***Price w/instant coupon; coupon expires 5/31/03**	
AH-7000 25-1000 MHz discone ant w/coax	179.99
CP-12 Cig lighter cable w/filter	36.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-106 Plug-in DSP unit	149.99
R-75 .03-60 MHz shortwave receiver	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
UT-106 DSP FREE with R-75! thru 6/30/03	
CR-282 High stability crystal unit	149.99
CT-17 CI-V level converter	139.99
FL-52A 500 Hz 455 KHz IF CW filter	189.99
FL-53A 250 Hz 455 KHz IF CW filter	189.99
FL-96 2.8 KHz 455 KHz IF SSB filter ....Δ	149.99
FL-100 500 Hz 9 MHz IF CW filter	119.99
FL-101 250 Hz 9 MHz IF CW filter	119.99
FL-103 2.8 KHz 9 MHz IF SSB filter	109.99
FL-222 1.9 KHz 455 KHz IF SSB filter	199.99
FL-223 1.9 KHz 9 MHz IF SSB filter	99.99
FL-232 350 Hz 9 MHz IF CW/RTTY filter	99.99
FL-257 3.3 KHz 455 KHz IF SSB filter	189.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
OPC-869 DC cable	13.99
RS-R75 PC control software w/RS-232 cable	80.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit	149.99
R-8500-02 .1M - 2G receiver/cell blocked	*CALL
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R-8500-04* .1MHz - 2GHz receiver	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
AH-7000 25-1000 MHz discone ant w/coax	179.99
CR-293 High stability xtal unit	329.99
FL-52A 500 Hz CW filter	189.99
MB-12 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
RS-R8500 PC control soft w/RS-232 cable	80.99
SP-7 Small external speaker	94.99
SP-21 External speaker	119.99
UT-102 Voice synthesizer	74.99

*United States & state government agencies or a political subdivision thereof and communications utility companies and their legal agents **ONLY** may purchase unblocked models of R-2/R-3/R-5/R-10/PCR-100/PCR-1000/R-8500 for official government or communications utility company use only. Mail or FAX purchase order to AES. Exports: inquire.

2m TRANSCEIVERS

UT-101 DTMF unit for IC-2000H ....Δ	$ 28.99
IC-2100H-25N 50w 2m FM Xcvr/NEW TTP mic	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
CS-2100 DOS cloning software	13.99
OPC-478 PC RS-232C cable	45.99
CSW-2100 Win prog soft/cable; IC-2100H	50.99
HM-90A Wireless microphone ....Δ	119.99
BC-96 Wireless microphone holder ....Δ	39.99
CP-13L Cig cable w/filter for BC-96 Δ	39.99
EX-1759 Infrared receiver ....Δ	99.99
HM-98S Extra TTP mic; original IC-2100H Δ	90.99
MB-17A Quick release bracket	49.99
MB-28H Extra mobile bracket	26.99
OPC-346 Extra 9.8' DC cable	28.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99

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	AES Price
OPC-441 Speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
SP-10 Slim-line external speaker	69.99
IC-V8000 75w 2m FM Xcvr w/WX alert/scan	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
CS-V8000 Windows cloning software	35.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-474 Radio to radio cloning cable	18.99
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
OPC-1132 9.8' DC cable	28.99
SP-10 Slim-line external speaker	69.99
UT-108 DTMF decoder unit	35.99
V8000-MMB Extra mobile bracket	26.99
IC-207H 50w 2m/35w 440 FM Xcvr/TTP	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
CS-207 DOS prog software; IC-207H	13.99
CSW-207/2710 Win cloning soft; 207/2710	30.99
OPC-646 Prog cbl; CS-207/CSW-207/2710	89.99
HM-90A Wireless microphone ....Δ	119.99
BC-96 Wireless microphone holder ....Δ	39.99
CP-13L Cig cable w/filter for BC-96 Δ	39.99
EX-1759 Infrared receiver ....Δ	99.99
MB-17A Quick release bracket	49.99
MB-28H Extra mobile bracket	26.99
MB-58 Remote controller bracket	39.99
MB-65 Mounting base platform	35.99
OPC-346 Extra 9.8' DC cable	28.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-589 8-pin to jack adapter	35.99
OPC-600 11.5' extension cable	45.99
OPC-601 23' extension cable	59.99
OPC-647 8.2' mic extension cable	54.99
RMK-3 Package; MB-58/OPC-600/OPC-647	84.99
SP-10 Slim-line external speaker	69.99
UT-89 Tone scan/decode unit; IC-2350H ....Δ	89.99
UT-104 Tone squelch unit; IC-2710H ....Δ	39.99
IC-2720H 50w 2m/35w 440 FM Xcvr	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
CS-2720 Win/DOS cloning software	35.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
MB-17A Quick release bracket	49.99
MB-84 Extra remote controller bracket	18.99
MB-65 Mounting base platform	35.99
MB-85 Combination bracket	25.99
OPC-347 23' DC cable	46.99
OPC-440 Mic extension cable	85.99
OPC-441 Speaker extension cable	33.99
OPC-589 8-pin to jack adapter	35.99
OPC-647 8.2' mic extension cable	54.99
OPC-1132 9.8' DC cable	28.99
OPC-1156 11.5' separation cable	26.99
SP-10 Slim-line external speaker	69.99
CS-2800 Windows cloning software; 2800H Δ	12.99
OPC-872 Controller extension cable; 2800H Δ	24.99
UT-84 Tone squelch unit; IC-2700H/821H ..Δ	89.99
IC-910H 100w 2m/75w 430 FM/SSB Xcvr	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
PS-125 25A switching power supply	299.99
AG-25 2m mast mounted GaSFET preamp	189.99
AG-35 430 MHz mast mounted preamp	199.99
AG-1200 1.2 GHz mast mt preamp	159.99

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	AES Price
CR-293 High stability xtal unit	329.99
CT-17 CI-V level converter	139.99
FL-132 500 Hz main Rcvr CW filter	119.99
FL-133 500 Hz sub band Rcvr CW filter	119.99
MB-5 Mobile mount	59.99
MB-23 Side mount carrying handle	15.99
SM-20 Deluxe desk microphone	219.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
UT-102 Voice synthesizer	74.99
UT-106 Plug-in DSP unit	149.99
UX-910 10w 1.2GHz module	499.99
Accessories for IC-2AT	
BC-25U Extra wall cgr; BP-3 only ....Δ	$ 29.99
BM-112U/BC-16U Wall cgr; 5A/7/8 only ....Δ	26.99
BP-4 Alkaline battery case ....Δ	35.99
BP-5 425ma 10.8v high power battery ....Δ	79.99
BP-8 800ma 8.4v long life battery ....Δ	99.99
CP-1 Cig cgr; BP-3/7/8//DC cord ....Δ	24.99
CP-11 Cig cord w/noise filter ....Δ	39.99
DC-1 DC operation module ....Δ	39.99
IC-T2H Sport 6w 2m FM HT/battery holder	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
AD-81 Batt pack adapter for rapid charger	17.99
BC-110A/BC-74 Extra wall charger	40.99
BC-119-N01 Desk charger (adapter required)	84.99
BC-133 Drop-in trickle charger	39.99
BC-122A AC adapter for BC-133	16.99
BP-194 AA alkaline battery case	18.99
BP-195 9.6v 700ma nicad battery	42.99
BP-196 9.6v 1050ma nicad battery ....†	39.99
CP-12L Rt angle cig charge cable w/filter	36.99
CP-17L Right angle cig cable for charger	24.99
CS-T2 DOS prog software for IC-T2	13.99
OPC-474 Cloning cable (T2 to T2)	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HH4 Windows prog soft w/cable; T2	50.99
HM-46 Slim-line speaker/mic	45.99
HM-54 Hvy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-145 Carrying case for IC-T2	38.99
LCF3 Swivel Leather case with swivel	50.99
MB-68 Extra standard belt clip	5.99
MB-74 Spring loaded belt clip	12.99
MB-87 Swivel belt clip	9.99
OPC-254L Right angle mini DC chg cable	14.99
SP-13 Earphone	4.99
IC-V8 5.5w 2m FM HT/batt/cgr/TTP	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
AD-101 Batt adapt; BP-211/BC-119-N01	25.99
AD-94-11 Adapter cup; BC-119-N01	17.99
BC-119-N01 Desk charger (adapter required)	84.99
BC-144-01/21 Desk charger with adapter	89.99
BP-208 Battery case	18.99
BP-209 7.2v 1100ma 5.5w battery	53.99
BP-210 7.2v 1650ma 5.5w battery	80.99
BP-211 7.4v 1800ma lith ion battery	91.99
BP-222 7.2v 600ma 5.5w battery	35.99
CP-17L Right angle cig cable for charger	24.99
CS-V8 Cloning software for IC-V8	35.99
OPC-474 Cloning cable (V8 to V8)	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
HM-46L Slim-line spkr/mic, rt angle plug	45.99
HM-54 Hvy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99

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	AES Price
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1L	24.99
VS-1L Right angle VOX-PTT unit for HS-94	42.99
LCF3G Swivel Leather case with swivel	50.99
MB-68 Extra standard belt clip	5.99
MB-74 Spring loaded belt clip	12.99
MB-87 Swivel belt clip	9.99
OPC-515L Right angle DC cord for charger	20.99
SP-13 Earphone	4.99
UT-108 DTMF decoder unit	35.99
IC-T22A 5w 2m FM HT/batt/cgr/TTP	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
IC-T7H 6w 2m/440 FM HT/batt/cgr/TTP	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
IC-W32A 5w 2m/440 FM HT/batt/cgr/TTP	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
AD-51 Batt pack adapt; W32A/rapid cgr	9.99
AD-56 Batt pack adapt; T7H/T22A/rapid cgr	18.99
BC-119-N11 Nicad/NiMH desk cgr (adapt required)	89.99
BP-170 Battery case	35.99
BP-172 4.8v 950ma battery	91.99
BP-173 9.6v 600ma battery	139.99
BP-180 7.2v 600ma battery	83.99
CP-12 Cig lighter cable w/filter	36.99
CP-12L Right angle cig cable w/filter	36.99
CS-T7 DOS prog software for IC-T7H ....Δ	.99
CSW-32 DOS prog software for IC-W32A	13.99
OPC-474 Cloning cable W32A to W32A)	18.99
OPC-478 PC RS-232C cable	45.99
CSW-HH4 Windows prog soft/cbl; T7H/W32A	50.99
FA-1443B Extra 2m/440 dual band duck .Δ	29.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug; T22A	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-10 Boom mic/headset	69.99
HS-10SA VOX unit	69.99
HS-10SB PTT switchbox	69.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-pc headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-125 Vinyl case; T22A w/BP170/171/172 D	2.99
LC-126 Vinyl case; T22A w/BP173 ....Δ	19.99
LC-128 Vinyl case; IC-W32A	38.99
LC-136 Vinyl case; T7H w/BP170/171/172	38.99
LC-137 Vinyl case; T7H w/BP173/180	38.99
MB-30 Mobile/wall bracket	41.99
NCP-1 Nylon chest pack	39.99
OPC-254 Mini DC power cable	14.99
OPC-254L Right angle mini DC pwr cable	14.99
SP-13 Earphone	4.99
UT-94 Tone squelch unit; IC-T22A ....Δ	29.99
IC-Q7ABC 350/300mw 2m/440 HT/batts/cgr	*CALL
***Price w/instant coupon; coupon expires 5/31/03**	
AD-92SMA SMA- BNC adapter	16.99
BC-127A Extra nicad charger	20.99
HM-46 Slim-line speaker/mic	45.99
HM-128 Earphone+microphone	25.99
HS-85 Headset w/VOX	89.99
SP-13 Earphone	4.99
OPC-782 Plug adapt cbl; HM46/HS85/SP13	16.99
LC-146 Carrying case	38.99
AD-87 Batt pack adapter; rapid cgr; T81A .Δ	8.99
AD-88 PCB board; original BC-119-11 ....Δ	29.99
BC-119-31 Nicad desk cgr (adapt required);T81A D	99.99
BC-119-N21 Nicad/NiMH desk cgr (use adapt);T81A Δ	99.99
BP-197 Battery case for 3 AA; IC-T81A ....Δ	24.99
BP-198 4.8v 700ma NiMH batt; IC-T81A ...Δ	59.99
BP-199 6v 700ma NiMH battery; IC-T81A ..Δ	69.99
BP-200L 9.6v 760ma NiMH battery; T81A ..Δ	89.99

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CS-T81 Windows cloning soft; IC-T81A .....Δ	13.99
LC-148 Carrying case; IC-T81A .....Δ	24.99
IC-T90A 5w 6m/2m/440 HT/batt/cgr/lith	*CALL
*Price w/instant coupon; coupon expires 5/31/03	
AD-92SMA SMA- BNC adapter	16.99
BC-139 Desk rapid charger	94.99
BP-216 Battery case for 2 AA	35.99
BP-217 7.4v 1300ma lith ion battery	89.99
CP-19R Cig lighter cable w/filter	44.99
CS-T90A Windows cloning software; IC-T90A	35.99
OPC-474 Cloning cable (radio to radio) .	18.99
OPC-478 PC RS-232C cable	45.99
OPC-478U PC USB cable	60.99
HM-46 Slim-line speaker/mic	45.99
HM-75A Remote control microphone	70.99
HM-128 Earphone+microphone	25.99
HM-131 Spkr/mic/earph jack/revolving clip	38.99
HS-85 Headset w/VOX	89.99
HS-94 Ear-pc headset; use w/VS-1	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-152A Carrying case	24.99
MB-83 Swivel belt clip	9.99
SP-13 Earphone	4.99

Accessories for IC-2SAT/2SRA/24AT/W2A

AH-20 Replacement rcv ant; IC-2SRA .....Δ	$ 24.99
BP-83 7.2v 600ma battery .....Δ	79.99
BP-84 7.2v 1000ma battery .....Δ	99.99
BP-90 AA alkaline battery case .....Δ	35.99
IC-2GXAT/HP 7w 2m HT/batt/cgr/TTP	*CALL
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AD-25 Battery charger adapter .....Δ	49.99
AD-28 Batt pack adapter for rapid charger	18.99
BC-105A/BC-77 Extra wall charger .....Δ	24.99
BC-119-N11 Nicad/NiMH desk cgr (adapt required)	89.99
BP-130A Battery case .....Δ	35.99
BP-157A 900ma 7.2v battery	85.99
BP-174 600ma 12v battery	98.99
CP-13L Right angle cig cable w/filter .....Δ	39.99
HM-46 Slim-line speaker/mic	45.99
HM-46L Slim-line spkr/mic, rt angle plug .	45.99
HM-54 Heavy duty spkr/mic	83.99
HM-128 Earphone+microphone	25.99
HS-51 Headset w/VOX	96.99
HS-94 Ear-piece style headset; use w/VS-1 .	24.99
VS-1 VOX-PTT unit for HS-94	42.99
LC-116 Carrying case; BP-130A/157A/160 D	19.99
MB-30 Mobile/wall bracket	41.99
OPC-288 Mini DC power cable .....Δ	19.99
SP-13 Earphone	4.99
AD-44 Batt adapter; rapid cgr; T21A .....Δ	.49
LC-110 Vinyl case; BP-153; ICT21A .....D	.69

ACCESSORIES

AG-25 2m mast mounted GaSFET preamp	$189.99
AG-35 430 MHz mast mounted preamp	199.99
AG-1200 1.2 GHz mast mt preamp	159.99
CT-17 CI-V level converter	139.99
HM-12 Scan hand microphone	74.99
MB-23 Side mount carrying handle	15.99
OPC-137 Adapter cable; older Icom Xcvr ...Δ	19.99
PS-125 25A switching power supply	299.99
SM-6 Electret desk microphone	119.99
SM-20 Deluxe desk microphone	219.99
SP-5 Mobile speaker	54.99
SP-7 Small external speaker	94.99
SP-10 Slim-line external speaker	69.99
SP-20 Speaker w/audio filter	249.99
SP-21 External speaker	119.99

CONSUMER ELECTRONICS

A-22 5w compact Navicom air handheld	$399.99
GP-270ML Fixed mt marine GPS w/keypad ...	399.99

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	AES Price
IC-M1V Waterproof 5w VHF marine handheld	199.99
IC-M3A 5w VHF marine handheld w/AA nicads	159.99
IC-M45AW White 25w VHF marine Xcvr	149.99
IC-M402W02 White waterproof 25w VHF marine	199.99
M-710 (21) 150w HF marine SSB .spec order	1399.99
AT-130 HF marine auto ant tuner spec order	449.99
M-802 150w DSP marine SSB Xcvr spec order	1749.99
BP-202 Nicad battery; IC-4008A .....Δ	9.99
IC-F21-GM 15 ch 4w GMRS/FRS handheld ...	149.99

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K-3 Logikey CW keyer	$129.99
HK-3 Hook-up kit	10.99

International Ant (IAC)

160m double **Bazooka** 248' antenna	$214.99
160m double **Bazooka Shorty** 168' antenna ..	229.99
80m double **Bazooka** 121' antenna	150.99
80m double **Bazooka Shorty** 84' antenna	159.99
40m double **Bazooka** 64' antenna	126.99
40m double **Bazooka Shorty** 40' antenna	129.99
160m-S 160m half sloper 127' antenna	140.99
80m-S 80m half sloper 67' antenna	115.99
40m-S 40m half sloper 33' antenna .....Δ	69.99

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80 80m 32" x 16" x 15" 110 KHz bandwidth ant	98.99
40 40m 22" x 16" x 15" 250 KHz bandwidth ant	88.99
20 20m 21" x 8" x 4" 350 KHz bandwidth ant	78.99
15 15m 21" x 1.5" x 4" 450 KHz bandwidth ant	78.99
10 10m 16" x 1.5" x 4" 1 MHz bandwidth ant	78.99
6 6m 16.5" x 2" x 4" 1.25 MHz bandwidth ant	78.99
80/40 Combo* 80/40m 32" x 16" x 30" ant .	169.99
20/15/10 Combo 20/15/20m combo ant	198.99

*Requires coaxial "T's" & jumpers - not included

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RF-1/Low Modular phone .5-3 MHz RFI filter	16.99
RF-1/2-line 2-line modular 3-30 MHz RFI filt	22.99
RF-1/coiled Coiled cord modular 3-30MHz filt	22.99
RF-2 Hard-wired telephone 3-30 MHz RFI filt	10.99
RF-2/Low Hard-wired phone .5-3 MHz RFI filt	10.99

KANTRONICS (KAN)

KPC-3 Plus/128K Small packet TNC/128K RAM	$186.99
KPC-**9612 Plus/128K** 9600 controller/128K ...	369.99
(CSS) **Pacterm 98** Software; Kantronics TNCs	79.99
12VDC Adaptor 300ma adaptor; KPC-3	12.99
Host Master II+ IBM software	89.99
Superfax II WX FAX program for IBM .....D	39.99
KAM 98 Single port multi-mode dig controller	399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs	79.99
12VDC Adaptor 300ma adaptor; KAM 98	12.99
KAM XL All mode TNC w/DSP modems	399.99
(CSS) **Pacterm 98** Software; Kantronics TNCs	79.99
12VDC Adaptor 300ma adaptor; KAM XL	12.99
APRS adapter cable; GPS to Kantronics TNC .	32.99

KENWOOD (KEN)

DRU-2 Dig recording unit; TS-950SDX .....Δ	$139.99
SP-950 Ext spkr/audio filters; TS-950SDX .....Δ	149.99
TS-B2000 PC ctl HF/6m/2m/430 Xcvr/tuner	1549.95
Heil Goldline mic/accs from Kenwood thru 5/31/03!	
TS-2000 HF/6m/2m/430 Xcvr/ant tuner	1699.95
Heil Goldline mic/accs from Kenwood thru 5/31/03!	
*UT-20 1.2GHz module Kenwood install only	
TS-2000X HF/6m/2m/430/1.2 Xcvr/tuner	2299.95
Heil Goldline mic/accs from Kenwood thru 5/31/03!	
KPS-15 23A switching ps w/fan, 25A surge	149.99

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PS-53 Heavy duty 22.5A power supply	249.99
ARCP-2000 PC control soft (inc w/TS-B2000)	82.99
DRU-3A Digital recording unit	129.99
MB-43O Mobile mounting bracket	49.99
MC-43S Extra 8-pin hand mic w/up-down .	59.99
MC-57DM Back-lit TTP hand mic	79.99
MC-60A 8-pin amp desk mic w/up-down ..	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
RC-2000 Remote faceplate mobile kit	349.99
SP-23 External speaker	89.99
VS-3 Voice synthesizer	39.99
TS-870S 9-band Xcvr/Rcvr/IFDSP/tuner	2299.99
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-52 Heavy duty power supply	269.99
DRU-3A Digital recording unit	129.99
MC-43S Extra 8-pin hand mic w/up-down .	59.99
MC-60A 8-pin amp desk mic w/up-down ..	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-31 External speaker	99.99
VS-2 Voice synthesizer .....D	69.99
TS-570D(G)* 9-band Xcvr/Rcv/AFDSP/tuner/mic	1089.95
*$200 rebate from Kenwood thru 5/31/03!	
TS-570S(G)* 9-band Xcv/6m/Rcv/AFDSP/tune/mic	1259.95
*$200 rebate from Kenwood thru 5/31/03!	
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
DRU-3A Digital recording unit	129.99
MB-43O Mobile mounting bracket	49.99
MC-43S 8-pin hand mic w/up-down	59.99
MC-60A 8-pin amp desk mic w/up-down ..	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
MC-90 2-head DSP desk microphone	239.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-23 External speaker	89.99
VS-3 Voice synthesizer	39.99
YK-88C-1 500 Hz CW filter	129.99
YK-88CN-1 270 Hz CW filter	129.99
YK-88SN-1 1.8 KHz SSB filter	129.99
TS-50S Compact HF Xcvr/SW Rcvr/mic/mt ..	649.95
KPS-15 23A switching ps w/fan, 25A surge	149.99
PS-53 Heavy duty 22.5A power supply	249.99
AT-50 External HF auto tuner	329.99
PG-4M 18' extension cable for AT-50	29.99
MC-47 Extra multi-func 8-pin hand mic ...	59.99
MC-60A 8-pin amp desk mic w/up-down ..	149.99
MC-80 8-pin electret desk mic w/up-down	109.99
PG-2Y 13' DC cable	39.99
PG-2Z 6.5' heavy duty DC cable	37.99
SO-2 TCXO unit	179.99
SP-23 External speaker	89.99
TC-50/50Case Travel case for TS-50S/60S	89.99
YK-107C 500 Hz CW filter	129.99
7-pin DIN plug	4.99
8-pin DIN plug	6.99
13-pin DIN plug	9.99
HS-5 Deluxe headphones	79.99
HS-6 Lightweight headphones	59.99
KPS-15 23A switching ps w/fan, 25A surge .	149.99
LF-30A 1kw PEP low pass filter	64.99
MC-43S 8-pin hand mic w/up-down switch ..	59.99
MC-60A 8-pin amp desk mic w/up-down	149.99
MC-80 8-pin electret desk mic w/up-down ...	109.99

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PG-3B 15A DC line noise filter	29.99
SP-50B High quality external mobile speaker	55.99
TSU-5 Prog CTCSS decoder; TS-790A .....D	59.99
TU-7 Prog encoder; 2550/751A/TW-4100A .Δ	54.99
TU-8 CTCSS tone unit; TS-450S/690S .....D	54.99
YG-455C-1 500 Hz CW filter; TS-450/690 ...D	149.99
TM-642AD 50w 2m/25w 220FM/backlit TTP mic	739.99
TM-742AD 50w 2m/35w 440 FM/backlit TTP ...	639.95
DFK-3 9' separate display cable kit	26.99
DFK-4 13' remote cable kit	59.99
DFK-7 Deluxe 22' remote cable kit	89.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
TSU-7 CTCSS decoder unit	59.99
UT-50S 50w 6m unit	329.99
UT-220S 25w 220 MHz unit	329.99
UT-440S 35w 440 MHz unit	299.99
UT-1200 10w 1.2 GHz unit	399.99
TM-D700A 50w 2m/35w 440 FM/1200/9600 ...	519.95
MB-201 Extra mobile bracket	25.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
PG-4X 13' extension cable kit	69.99
PG-5A Packet data cable	15.99
VS-3 Voice synthesizer	39.99
TM-G707A 50w 2m/35w 440 FM/TTP mic	269.95
TM-V7A 50w 2m/35w 440 FM Xcvr/TTP mic ...	399.95
DFK-3C 9' separate display cable kit	44.99
DFK-4C 13' remote cable kit	64.99
DFK-7C Deluxe 23' remote cable kit	99.99
MB-201 Extra mobile bracket	25.99
MJ-88 Modular to 8-pin mic adapter	30.99
PG-2N Extra DC cable	17.99
PG-4S PC interface cable	32.99
PG-5A Packet data cable	15.99
VS-3 Voice synthesizer	39.99
TM-331A 25w 220 FM Xcvr w/TTP mic	499.99
KQT-8/TSU-6 Prog CTCSS decoder	49.99
MB-201 Extra mobile bracket	25.99
PG-2N Extra DC cable	17.99
TM-541A 10w 1.2 GHz FM Xcvr/TTP/encoder	449.99
KQT-8/TSU-6 Prog CTCSS decoder	49.99
MB-201 Extra mobile bracket	25.99
PG-2N Extra DC cable	17.99
TM-261A 50w 2m FM Xcvr w/TTP mic	149.99
TM-461A 35w 440 FM Xcvr w/TTP mic	439.99
MB-201 Extra mobile bracket	25.99
PG-2N Extra DC cable	17.99
TSU-8 CTCSS decoder	59.99
MC-57DM Back-lit TTP mic;241/331/441/541 ..	79.99
MC-58DM Back-lit TTP mic;251/733/742/255/V7A	79.99
ME-1 Mem expansion; TH-28A/78A/TM-251A D	2.99
TH-22ATH 5w 2m FM HT/batt/cgr/TTP	219.99
BT-9 4-AA battery holder	29.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
KSC-8A Drop-in cgr; 25/26/75/77/22/42/79	26.99
KSC-14 2-pack rapid charger	87.99
PB-33 1200ma 6v battery	89.99
PB-34 600ma 9.6v (5w) battery	89.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
SMC-32 Mini water resist rt angle spkr/mic .	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
TSU-8 CTCSS decoder; TH-22/42AT	59.99
WR-2 Water resistant bag; TH-22/42AT	29.99
TH-G71A 5w 2m/440 FM HT/batt/cgr/TTP ...	229.95
TH-D7A(G) 5w 2m/440 FM HT/1200/9600 TNC	359.95
BC-19 Rapid charger	64.99
BT-11 4-AA battery holder	17.99

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	AES Price
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
J29-0631-13 Belt clip for batt; D7A/G71A .	4.99
PB-38 650ma 6v battery .....D	9.99
PB-39 600ma 9.6v (5w) battery	57.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
PG-4P Computer control cable; TH-G71A ..	32.99
PG-4V VC-H1 cable for TH-D7A(G) .....Δ	49.99
PG-4W PC software/cable; TH-D7A(G)	55.99
SC-45 Soft case for TH-G71A/PB-38/39	15.99
SC-47B Black soft case for TH-D7A(G)	15.99
SC-470R Orange soft case for TH-D7A(G) .	15.99
SMC-32 Mini water resist rt angle spkr/mic .	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
WR-2 Water resistant bag; TH-G71A	29.99
TH-F6A 5w 2m/220/440 FM HT/lith ion batt ..	329.95
BT-13 AA battery case	25.99
EMC-3 Lapel clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
PB-42L Extra lithium ion battery	79.99
PG-2W DC cable w/fuse	17.99
PG-3J Cig lighter cord w/filter	36.99
PG-4P Computer control cable	32.99
SC-51 Soft case w/swivel belt clip	16.99
SMC-32 Mini water resist rt angle spkr/mic .	52.99
SMC-33 Speaker/mic w/remote control	65.99
SMC-34 Spkr/mic w/vol cont/function keys	39.99
BT-10 6 AA alk batt case; TH-235A .....D	2.99
E30-3352-08 16-pin DIN/unterminated cbl; VCH1 Δ	44.99
E59-0407-08 16-pin DIN plug only; VCH-1 Δ	24.99
KCT-24S VCH-1 to PC software/cable .....Δ	49.99
PG-4T VC-H1 to Kenwood FM mobile cable .... Δ	49.99
SC-46P Protective case for VCH-1 .....D	18.99

CONSUMER ELECTRONICS

TKM-707 150w HF marine SSB Xcvr spec order	1249.99
KAT-1 HF marine auto ant tuner ...spec order	569.99
UBZ-LH14BK Deluxe FRS black handheld	69.99
EMC-3 Label clip mic/ear piece	29.99
HMC-3 VOX/boom mic headset	59.99
SMC-34 Spkr/mic/vol cont/function keys ...	39.99
UBC-3 Nicad desk charger .....D	14.99
UBC-4 Nicad desk charger	25.99
UPB-2 Nicad battery pack	24.99
USC-5B Black nylon case	15.99

KLEINHUIS (KLE)

1309 Isolated grounding bar	$ 14.99

KOSS (KOS)

KTX/4 Collapsible stereophone w/vol control D	$ 14.99
KTX/8 Collapsible stereophone w/vol control ...	14.99
QZ/99 Noise reduction stereoph w/mono sw .	59.99
QZ/2000 Active noise reduction stereophone	179.99
Y-88 Dual stereophone Y-adapter	4.99

LDG (LDG)

AT-11MP 160-10m auto antenna tuner	$219.99
MP-Head MP remote head .....D	39.99
MP-AL-Cable MP Alinco interface cable	10.99
MP-IC-Cable MP Icom interface cable	10.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
RT-11 160-6m remote auto antenna tuner ...	199.99
RT-Head RT remote head	39.99
RT-AL-Cable RT Alinco interface cable	20.99
RT-IC-Cable RT Icom interface cable	20.99
RBA-1 Remote 4:1 balun; long/random/end fed	30.99
Z-11 30w QRP auto antenna tuner	169.99

LA CROSSE (LAC)

WS-2010 Professional wireless weather stn .	$389.99

La Crosse - continued

	AES Price
WS-2010-13 PC interface/software	129.99
WS-2310 Wireless/wired weather center	249.99
WS-7013U Wireless temperature station	29.99
WS-7038UF Wireless rain gauge	59.99
WS-7075UF Wireless forecast station	59.99
WS-8015U Dlx sun/moon wireless WX stn	159.99
WS-9016U Sun/moon wireless weather stn ..	79.99
WT-5431 Projection alarm w/remote temp	49.99
TX-3U Extra temp sensor w/LCD; all WX units	15.99
3362U Power cost controller	29.99
IR-101 Infra-red thermometer	49.99
RS-204U Remote control outlet	29.99

LAKEVIEW (LAK)

9175 75m 7' Hamstick antenna	$ 24.99
9140 40m 7' Hamstick antenna	24.99
9130 30m 7' Hamstick antenna	24.99
9120 20m 7' Hamstick antenna	24.99
9117 17m 7' Hamstick antenna	24.99
9115 15m 7' Hamstick antenna	24.99
9112 12m 7' Hamstick antenna	24.99
9110 10m 7' Hamstick antenna	24.99
9106 6m 4.5' Hamstick antenna	24.99
901 Dipole mount for 2 Hamsticks	14.99
IM-1 Inducti-match for 75-12m mobile ant ..	17.99
TM-1 License plate mount, ⅜-24	44.99
TM-1-Plus License plate mount, SO-239	44.99

LARSEN (LAR)

27-31 MHz ANTENNA

NMO-27B 10m black ant only (no mount)	$ 36.99
NMO-27C 10m ant only (no mount)	33.99

47-54 MHz ANTENNA

NMO-50B 6m black ant only (no mount)	$ 36.99
NMO-50C 6m ant only (no mount)	33.99

144-174 MHz ANTENNAS

NMO-150B 2m black ant only (no mt), 3 db .	$ 33.99
NMO-150C 2m ant only (no mount), 3 db	30.99

220-265 MHz ANTENNAS

NMO-220B 220 black ant only (no mt), 3 db	$ 36.99
NMO-220C 220 ant only (no mount), 3 db	30.99

440-460 MHz ANTENNAS

NMO-440B 440 black ant only (no mt), 4.5db	$ 35.99
NMO-440C 440 ant only (no mount), 4.5 db .	29.99
MM-2/70PL 2m/440 ¼ wave/2db mag mt ant	50.99
NMO-2/70B 2m/440 blk ant only (no mt), 2/4db ...	65.99
NMO-2/70C 2m/440 ant (no mount), 2/4db	60.99
NMO-2/70-SH 2m/440 ant (no mt), ¼ wv/2db	40.99
NMOQ-Spec 136-512 MHz ¼ wave ant (no mt)	13.99
NMOQ-Spec-B 136-512 black ¼ wv ant (no mt)	15.99
NMOQ-Spec-K 136-512MHz ¼ wv ¾" hole ant	28.99
NMOQ-2/70-B 2m/440 ¼ wv cell look ant (no mt) ..	36.99
GPS-NM002 GPS NMO mount ant (no mt)	79.99
NMO-150450800 3-band scanner ant (no mt)	29.99

ON GLASS ANTENNAS

KG-144-UD-PL 2m 3 db on glass antenna ...	$ 83.99
KG-220-UD-PL 220 3 db on glass antenna ..	83.99
KG-440-UD-PL 440 2.4 db on glass antenna	71.99
KG-2/70-CX-PL 2m/440 2.5/4.5db on glass .	116.99
KG-Reinstall Reinstall kit for KG-ants	8.99

KULDUCKIES - For Hand-helds

KD4-146 2m BNC Kulduckie .....D	$ 20.99
KD4-2/70 2m/440 BNC Kulduckie	36.99
KD4-222 220 BNC Kulduckie .....D	20.99
KD14-445 440 ¼ wave BNC Kulduckie	19.99
KD4-146-HQ 2m part helical, part ¼ wave BNC	25.99
KD14-2M-HW 2m ½ wave BNC antenna	38.99
KD14-440-HW 440 ½ wave BNC antenna	38.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Larsen - continued

AES Price

ACCESSORIES

BSA-K Base mtg kit; NMO/UHF mt mobile ant	$ 53.99
NMO-B38 NMO mt hdw/A-7 NLA adapter	13.99
NMO-CAP-B Black rain cap for NMO mount	4.99
NMO-K ¾" hole mt w/coax for NMO ant	15.99
NMO-MM Magnet mt, coax for NMO ant	32.99
NMO-TLP Low profile tnk lid mt, coax; NMO ant	29.99
PO-K Roof mt, coax for SO-239 ant	30.99
PO-MM Magnet mt, coax for SO-239 ant	36.99
PO-TLM Trunk lip mt, coax for SO-239 ant .D	19.99
RG-SS Extra super seal NMO gaskets (3)	5.99
SPRING Shock spring	10.99
TMB-34 Trunk mtg bkt for NMO antenna	5.99
TMB-34B Black trunk mtg bkt for NMO ant	7.99
W-2/70B 2m/440 black replacement whip	27.99
W-490 49" replacement whip	9.99
W-490B Black 49" replacement whip	12.99

LIGHTWAVE (LIG)

LW-HT 4 LED/3 AA-cell illuminator head torch	$ 39.99
LW-PB 1 LED/2 lith-cell pocket flashlight	19.99
LW-2000 4 LED/3 AA-cell flashlight	29.99
LW-3000 7 LED/3 C-cell flashlight	49.99
LW-4000 10 LED/3 D-cell flashlight	59.99

LOGSAT (LOG)

Logsat Professional Satellite tracking CDROM	$ 69.99

M² (MSQ)

KT-36XA 20/15/10m 6el 32' boom beam	1399.99
40M-1LDX 6.9-10 MHz rotatable dipole	543.99
20M-4DX 20m 7.4db 4el 34' boom beam	640.99
17M-3DX 17m 6.3db 3el 18' boom beam	483.99
17M-5DX 17m 8.6db 5el 36' boom beam	640.99
15M-4DX 15m 8.5db 4el 33' 8" boom beam	543.99
12M-4DX 12m 8.6db 4el 27' boom beam	483.99
10M-4DX 10m 8.7db 4el 23' boom beam	483.99
6M-3 6m 50-50.6 or 51-54 6.4db 3el 6'9" bm beam	149.99
6M-5X Upgrade Kit; 6M-5 to 6M-5X .....Δ	29.99
6M-5X 6m 50-50.5 or 51-54 9.4db 5el 18' bm beam	249.99
6M-7JHV 6m 50-50.4 10.9db 7el 30'8"bm beam	309.99
6M-2WLC 6m 49.7-50.5 11.9db 9el 39' 6" boom T*	558.99
6M-9KHW 6m 50-50.4 12.7db 9el 49' 4" bm beam	604.99
6M-HO-LOOP 6m 50-50.3 4.4db horiz loop ant	113.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
MAST BKT KIT For 6M-HO-LOOP	19.99
2M-4 2m 7.5db 4el 4' boom beam	113.99
2M-7 2m 10.3db 7el 8'10" boom beam	127.99
2M-9FM 2m 145-148 12db 9el 14' 6" bm beam	149.99
2M-9SSB 2m 144-146 12db 9el 14' 6" bm beam	149.99
2M-12 2m 12.8db 12el 19'6" boom beam	199.99
2M-5WL 2m 14.8db 17el 33' boom beam	249.99
2M-18XXX 2m 144-146 15.3db 18el 36'3" bm beam	289.99
2M-8WLHD 2m 144-144.7 17db 21el 55' bm beam	672.99
2M-CP14 2m 10.3db 7h/7v 10'6"bm circ beam	215.99
2M-CP22 2m 12.5db 11h/11v 18'6"bm circ beam	290.99
PS-2M 2m polarity switch; circ pol beam	177.99
FG X-Boom Kit For circular antennas, etc.	164.99
2M-XP20 144-146 13.3db 10h/10v cross polar Δ	199.99
2M-XP28 144-146 15.1db 14h/14v cross polar Δ	269.99
2M5-440XP 2m/440 9/12db 5/10el 5'8" bm beam	199.99
2M-HO-LOOP 2m 144-144.5 4.86db horiz loop	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
Big-Foot 4x-mag mt; 2M-HO-LOOP stack/etc	120.99

M² - continued

AES Price

MAG-KIT Magnet mt kit; single 2m-HO-LOOP	24.99
MAST BKT KIT For 2M-HO-LOOP	19.99
STACK-KIT Stack kit for 2 2m-HO-LOOP's	74.99
TOP BKT KIT For 2M-HO-LOOP	24.99
EB-144 2m Eggbeater omni/hor/rhc overhead D	129.99
EB-144/RK-2M 2m Eggbeater w/reflector kit	212.99
222-7EZ 220 9.8db 7el 5' 8" boom beam	113.99
222-10EZ 220 12db 10el 9' 9" boom beam	125.99
222-5WL 220 15.2db 15el 23'3" boom beam	199.99
222-7WL 220 16.4db 23el 32'5" boom beam	249.99
222-XP30 220 15.2db 15h/15v cross polar Δ	249.99
222-HO-LOOP 220-224 4.75db horiz loop ant	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
MAG-KIT Magnet mt kit; single 222-HO-LOOP	24.99
440-470-5W 440-470 7.8db 5el 2'2"bm beam	165.99
420-50-11 432 11.3db 11el 5' bm rear mt beam	113.99
440-18 432 14.5db 18el 11'4" boom beam	149.99
440-21ATV 432 15.9db 21el 14'6" bm ATV beam	177.99
436-CP30 432 14.5db 15h/15v 9'9"bm circ beam	290.99
436-CP42UG 432 16.8db 21h/21v 18'10"bm circ	341.99
PS-70CM 432 polarity switch; circ pol beam	177.99
FG X-Boom Kit For circular antennas, etc.	164.99
432-9WL 432 17.3db 28el 21' boom beam	215.99
432-13WLA 432 18.6db 38el 30'8" bm beam	289.99
432-HO-LOOP 430-436 5db horiz loop ant	49.99
6" x 1/2" 3/8-24 mobile mast for loop	10.99
16" x 1/2" 3/8-24 mobile mast for loop	12.99
18" x 5/8" 3/8-24 mobile mast for loop	17.99
36" x 1/2" 3/8-24 mobile mast for loop	28.99
50" x 1/2" 3/8-24 mobile mast for loop	31.99
Big-Foot 4x-mag mt; 432-HO-LOOP stack/etc	120.99
MAG-KIT Mag mt kit; single 432-HO-LOOP	24.99
STACK-KIT-70CM Stack kit; 2 432-HO-LOOP's	74.99
TOP BKT KIT For 432-HO-LOOP	24.99
EB-432 432 Eggbeater omni/hor/rhc overhead D	119.99
EB-432/RK-70CM 432 Eggbeater w/reflector kit	199.99
902-6W 900MHz 10db 6el 2' boom beam	75.99
902-10EZ 900MHz 12.6db 10el 3'5"bm beam	113.99
902-18EZ 900MHz 14.8db 18el 5'4"bm beam	165.99
902-14WLA 900MHz 18.8db 40el 15 4" bm beam Δ	199.99
23CM-22EZA 1.2GHz 16db 22el 5'2" bm beam	149.99
23CM-35 1.2GHz 18.4db 35el 10' bm beam	199.99
2M-2-Port-PD 2m 2-port type N power divider	69.99
70CM-2-Port-PD 432 2-port N power divider	69.99
23CM-2-Port-PD 1.2GHz 2-port N power divider	69.99
FAST MAST 20' extended port alum mast ...D	139.99
OR-2800PDC 35 sq ft azimuth rotor/control/8-wire	1572.99
RC-2800PP Control box; prop pitch .spec order	599.99

***These items are drop-shipped (shipped direct to you from the M² factory). On these factory drop-shipments we prefer payment in full with order, however, we will accept your credit card with the understanding that we will process the charge when we order the merchandise from the factory. This means that you may be billed before you receive your drop-shipped merchandise. Shipment is FOB Fresno, California via truck, COD for freight charges only. Freight charges will be collected upon delivery by the carrier. Please allow sufficient time for delivery on these special order items.**

MFJ ANTENNA TUNERS (MFJ)

989C Dlx 3kw PEP w/roller inductor	$319.99
986 3kw PEP w/roller inductor	299.99
962D 1.5kw PEP/meter/switch/balun/roller ind	249.99
969 HF & 6m 300w roller inductor tuner	189.99
949E 300w/PEP meter/dummy/switch/balun	139.99
948 300w/meter/switch/balun	119.99
941E 300w tuner w/meter, switch, balun	109.99
945E 300w tuner w/meter plus 6m	99.99
20 Mobile bracket for 945E	4.99

MFJ - continued

AES Price

901B Versa Tuner 200w ant tuner	79.99
910 80-10m mobile antenna matcher	19.99
16010 200w random wire tuner	49.99
903 6m antenna tuner	49.99
906 6m antenna tuner w/wattmeter	79.99
914 Auto tuner extender	59.99
921 2m/220 300w PEP tuner/SWR/wattmeter	69.99
922 2m/440 150w tuner/SWR/wattmeter	79.99
924 440 MHz 300w PEP tuner/SWR/wattmeter	69.99
934 300w tuner w/artificial ground	169.99
940A 10m antenna tuner/SWR/wattmeter ..D	59.99

MEMORY KEYERS

451 Dedicated CW keyboard w/memory	$ 99.99
452 CW keyboard/keyer w/disp/keyboard	129.99
452X CW keyboard/keyer w/disp, no keyboard	99.99
498 Dlx CW keyboard/keyer w/disp/keyboard	179.99
490 492 keyer/Bencher paddle combo	189.99
490X 492 keyer for use w/Bencher or 564	99.99
564 Deluxe iambic paddle for 490X	49.99
492 192 char menu driven memory keyer	89.99
495 Millennium memory keyer	149.99
5409 9-pin serial port 6' cable for 493 .....Δ	9.99
5425 25-pin serial port 6' cable for 493 ....Δ	4.99

ELECTRONIC KEYERS

407D Deluxe electronic keyer	$ 69.99
401D Econo keyer	49.99

KEYER/PADDLES

422D Keyer/Bencher paddle combination	$159.99
422DX Keyer only	79.99
441 SlimLine econo keyer	59.99
442 SlimLine keyer/Bencher paddle combo	149.99
442X SlimLine keyer only .....Δ	59.99
447 SlimLine deluxe keyer	79.99
564 Deluxe iambic chrome paddle	49.99
564B Deluxe iambic black paddle	49.99

COMPUTER INTERFACES

1224 Interface	$ 99.99
1265 Disk software for VIC/C64; 1224 ....D	2.99
1285 Software for IBM; 1224	19.99
1270C Packet radio TNC2	119.99
1278B Multi-mode controller w/Pactor	279.99
1278B/DSP Controller w/Pactor & DSP	359.99
48 1278 upgrade	24.99
52 TNC2 deviation meter board .....Δ	24.99
780 DSP data filter for 1278B .....Δ	69.99
1282 C64 starter pack .....D	2.99
1282BD Multicom 64 disk only .....D	.99
1284 5¼" IBM starter pack .....D	4.99
1284D 1284 disk only .....D	.69
1284M 3½" IBM starter pack	24.99
1284W MFJCOM for Windows	29.99
1287 Macintosh starter pack .....D	4.99
1287B Mac multicom starter pack .....Δ	4.99
1287D 1287 disk only .....D	.29
1288 Packet terminal program .....D	.69
1289 5¼" multicom software for IBM .....D	9.99
1289D 1289 disks only .....D	2.99
1289H Multicom host software for IBM	69.99
1289M 3½" multicom software for IBM	59.99
1289MD 1289M disks only .....Δ	19.99
1289W Multicom for Windows with cable	59.99
1289WD Multicom for Windows, less cable	49.99
1214PC Multimode interface for IBM	139.99
43 Real time clock for TNC .....D	4.99
781 DSP filter for any TNC or controller .....Δ	99.99
1272B TNC to microphone interface	39.99
1272BYH TNC/mic switch; KAM HF	39.99
1272BYV TNC/mic switch; KAM VHF	39.99
1272M TNC/mic RJ-45 switch; MFJ/PK-900	39.99
1272MYV TNC/mic RJ-45 sw; KAM VHF; KPC3	39.99

MFJ - continued — AES Price

SSB/CW FILTERS

722	SSB/CW notch filter ....Δ	$ 49.99
751B	Super tunable CW audio filter	69.99
752C	Dual tunable SSB/CW filter	89.99
784B	Deluxe tuneable DSP filter	229.99
5184	Cable pack for 784B	7.99

PHONE PATCH

624D	Phone patch w/audio VU meter	$119.99

DUMMY LOADS

250	2kw PEP dummy load w/oil	$ 59.99
250X	2kw PEP dummy load, less oil	39.99
21	1 gal industrial xfmr oil for wet dummy	24.99
260C	300w 0-650 MHz dry dummy load	34.99
260CN	300w 0-650 MHz type N dry dummy	39.99
264	1.5kw 0-650 MHz dry dummy load	69.99
264N	1.5kw 0-650 MHz type N dry dummy	79.99
267	1.8-54 100w dry dummy load/SWR/wattmeter	119.99

SWR/WATTMETERS

812B	144-220 MHz SWR/FS/wattmeter	$ 34.99
815B	160-6m cross-needle SWR/wattmeter	79.99
816	1.8-30 MHz toroidal SWR/wattmeter	34.99
817	2m/440 cross needle meter	89.99
841	2m 5w in-line HT wattmeter/SWR	39.99
844	Compact 2m/440 SWR/wattmeter	69.99
860	1.8-60 MHz cross-needle meter	44.99
862	2m/220/440 cross-needle meter	54.99
864	1.8-60MHz/2m/440 cross needle meter	84.99
870	1.6-60MHz Grandmaster SWR/wattmeter	124.99
872	1.8-200MHz Grandmaster SWR/wattmeter	94.99
873	125-525MHz Grandmaster SWR/wattmeter	104.99
874	1.8-525MHz Grandmaster SWR/wattmeter	159.99

SHORTWAVE ACCESSORIES

306	Car radio SWL converter	$ 89.99
956	LW/MW/SW preselector/tuner	49.99
959C	SW receiver ant tuner w/preamp	99.99
1020C	.3-30 MHz indoor active receive ant	79.99
1022	300KHz-200MHz active rcv antenna	49.99
1024	.05-30 MHz outdoor active rcv ant	129.99
1040B	Deluxe receiver preselector	99.99
1045C	Receiver preselector	69.99

BOOKS

30	Golden Classics book	$ 9.95
32	Packet Made Easy book	9.95
33	Mobile Handbook book	12.95
36	Shortwave Listeners Guide; Apts/Condos	9.95
37	Ham Communications Circuit Files book	9.95
38	Easy-up Antennas book	16.95
3036	The Packet Radio Operators book	12.95
3101	Fox Hunt Adventure book	7.95
3211	Technician license guide	9.95
3213	General license guide	9.95
3301	Troubleshooting Antenna & Feedlines book	12.95
3302	73 Dipole and Long-Wire Antennas	12.95
3303	73 Vertical, Beam, and Triangle Ants	12.95
3305	Antennas & Transmission Lines book	19.95
3400	Morse Code: Breaking the Barrier	19.95
3502	Solid State QRP Projects	12.95
3504	FET Principles, Experiments & Projects	16.95
3506	Ferromagnetic-Core Design book	19.95
3507	Practical RF Design Manual	19.95
3509	Ladder Crystal Filters	19.95

CLOCKS

105C	24-hour quartz wall clock	$ 19.99
107B	24-hour digital clock	9.99
108B	24/12-hour dual disp digital clock	19.99
112B	Deluxe world map clock	24.99
113	24/12-hr 1.8" LED clock/batt back-up	19.99
115	DX'er 24-hour analog world wall clock	24.99
116DC	12-hour 12vdc LED clock ....Δ	9.99
118	Giant 24/12 hour LCD clock	24.99

MFJ - continued — AES Price

123	Eternity solar atomic clock	79.99
125	Calendar 24-hour analog wall clock	29.99
152B	Thermo clock; in/out temp/12/24-hr clock D	24.99

ANTENNAS

343	1¼" hole mount for 3/8-24 whip	$ 9.99
1402	2m/440 0/3db 16.5" 100w ant only	34.99
1412	2m/440 3/5.5db 40" 200w ant only	49.99
1422	2m/440 3.2/5.7db 41.5" 150w ant only	49.99
1432	2m/440 5/7.6db 62.5" 150w ant only	69.99
1436	6m/2m/440 2.15/4.5/7.2db 59" ant only	79.99
333BM	3.5" HiFlux NMO mag mt; not 1436	14.99
333BS	3.5" HiFlux SO-239 magt mt not 1436	14.99
335BM	5" HiFlux NMO mag mt; not 1436	19.99
335BS	5" HiFlux SO-239 mag mt; not 1436	19.99
340	Mirror/luggage pipe clamp mount	34.99
345	Trunk/hatchback lip mount	34.99
1516	2m 15' vertical base antenna	94.99
1621	40-10m 54" portable ant w/tuner	89.99
1622	40-2m apartment antenna	89.99
1624	40-6m mini bugcatcher antenna	79.99
1710	2m ⅜ wave telescopic antenna	9.99
1712	2m/440 telescopic antenna	14.99
1713	2m/440 SuperFlex Thin Duk HT ant	19.99
1713S	2m/440 SuperFlex SMA Thin Duk ant	19.99
1714	2m ½ wave telescopic antenna	16.99
1715	2m/440 SuperFlex gain Thin Duk HT ant	24.99
1715S	2m/440 SuperFlex gain SMA Thin Duk	24.99
1716	2m/440 duck for HT	16.99
1716S	2m/440 SMA duck for HT	16.99
1717	2m/2.15db 440 duck for HT	21.99
1717PL	2m/440 foldover flexi-duck, PL-259	24.99
1717S	2m/2.15db 440 SMA duck for HT	21.99
1719	2m/440/1.2GHz Midget Duck	19.99
1719S	2m/440/1.2GHz SMA Midget Duck	19.99
1720S	6m/2m/440 SMA Duck	29.99
1721	2m HT UltraLite mag mt antenna	14.99
1722	2m/440 HT UltraLite mag mt antenna	18.99
1724B	2m/440 magnet mt antenna	16.99
1727	10m magnet mt antenna	39.99
1728B	6m ¼ wv/2m ⅝ wv mag ant/PL259/BNC	29.99
1729	2m/440 magnet mt antenna	34.99
1730	2m pocket roll-up vertical antenna	19.99
1734	2m/440 2.6/6.3db glass mt antenna	39.99
1736	6m J-Pole travel antenna	29.99
1738	2m 2.6db glass mt antenna	29.99
94	Remount kit for 1734/1738	4.99
1740	2m ¼ wave ground plane ant	19.99
1750	2m ⅝ wave ground plane ant	24.99
1752	220 ⅝ wave ground plane ant	24.99
1754	2m/440 ground plane antenna	29.99
1756	6m DX vertical antenna	79.99
1762	6m 6db 3 el 6' boom beam	79.99
1763	2m 3el portable beam	44.99
1764	2 & 6m dual ⅝ super gain base ant	49.99
1768	2m/440 4/7 el beam antenna	79.99
1778	G5RV 160-10m 102' ant (needs tuner)	39.99
1786	Super Hi-Q 10-30 MHz loop/dlx control	349.99
1788	Super Hi-Q 40-15m loop/dlx controller	389.99
1796	40/20/15/10/6/2m 10' vertical ant	189.99
1798	80/40/30/20/17/15/12/10/6/2m 20' vert	269.99
1899T	80-6m telescopic antenna for FT-817	129.99
1910	33' telescoping fiberglass mast	79.99

CABLES

5020	MFJ TNC - Yae FT50R/compat	$ 15.99
5020YV	KAM VHF/KPC3 - Yae FT50R/compat	15.99
5022	MFJ TNC - Alinco/Standard HT cable	15.99
5022YV	KAM VHF/KPC3 - Ali/Sta HT cable	15.99
5024	MFJ TNC - Ico/Yae/Ali/RS HT cable	15.99
5024B	PK/PacComm/compat - Ico/Yae/RS	15.99
5024YV	KAM VHF/KPC3 - Ico/Yae/Ali/RS HT	15.99
5026	MFJ TNC - Kenwood HT cable	15.99

MFJ - continued — AES Price

5026YV	KAM VHF/KPC3 - Kenwood HT cable	15.99
5060	MFJ TNC - Ken/Yae acc 6-pin mini DIN	19.99
5060YQ	KPC9612 - Ken/Yae acc 6pin mini DIN	19.99
5060YV	KAM VHF/KPC3 - Ke/Ya acc 6pin mni DIN	19.99
5063	MFJ TNC - Icom HF acc 8-pin DIN	19.99
5063YH	KAM HF - Icom HF acc 8-pin DIN	19.99
5064	MFJ TNC - Icom VHF acc 8-pin DIN	19.99
5064YQ	KPC9612 - Icom VHF 8-pin DIN ....Δ	2.99
5064YV	KAM VHF/KPC3 - Ico VHF acc 8pin DIN Δ	6.99
5065	MFJ TNC - Ico IC-706 acc 13-pin DIN	19.99
5065YH	KAM HF - Ico IC-706 acc 13-pin DIN	19.99
5065YV	KAM VHF - Ico IC706 acc 13-pin DIN	19.99
5066	MFJ TNC - Kenwood HF acc 13-pin DIN	19.99
5066YH	KAM HF - Ken HF acc 13-pin DIN	19.99
5080	MFJ TNC - Yaesu 8-pin cable	15.99
5080M	MFJ TNC - Yaesu 8-pin modular	15.99
5080MYV	KAM VHF/KPC3 - Yae 2500M/7400H	15.99
5080YH	KAM HF port - Yaesu 8-pin cable	15.99
5080YV	KAM VHF/KPC3 - Yaesu 8-pin cable	15.99
5082	Open end - 8-pin mic cable	9.99
5084	MFJ TNC - Icom 8-pin cable	15.99
5084M	MFJ TNC - Icom 8-pin modular	15.99
5084MYV	KAM VHF/KPC3 - Icom 8-pin mod	15.99
5084YH	KAM HF port - Icom 8-pin cable	15.99
5084YV	KAM VHF/KPC3 - Icom 8-pin cable	15.99
5086	MFJ TNC - Kenwood/Alinco 8-pin cable	15.99
5086M	MFJ TNC - Kenwood 8-pin modular	15.99
5086MYV	KAM VHF/KPC3 - Ken 8-pin mod	15.99
5086YH	KAM HF port - Ken/Ali 8-pin cable	15.99
5086YV	KAM VHF/KPC3 - Ken/Ali 8-pin cable	15.99
5088M	MFJ TNC - Radio Shack 8-pin modular	15.99
5205	5-pin DIN open end cable	4.99
5208	Open end - Ico HF/VHF acc 8-pin DIN	9.99
5213	Open end - Kenwood acc 13-pin DIN	9.99
5220R/5220	Open end - Yae FT50R/compat	9.99
5222	Open end - Ali split HT cable	9.99
5224	Open end - Ico/Yae/Ali/RS HT cable	9.99
5268	Open end - modular phone plug cable	9.99
5412	IBM printer cable	9.99
5413	RS-232 6' cable DB-25M-25F ....Δ	.99
5414	RS-232 6' cable DB-25M-9F	9.99
5803/10	3' coax jumper cable	5.99

RADIOS/TRANSCEIVERS

8100K	Shortwave regenerative Rcvr kit	$ 69.99
8100W	Shortwave regenerative Rcvr wired	89.99
8121	AM/FM/shortwave portable receiver	29.99
8621	5w 2m data radio w/145.01 MHz	139.99
8621X2	5w APRS ready 2m data radio/144.39	149.99
4110	Portable AC power supply	49.99
5100	Data radio cable - MFJ/TAPR	15.99
5100YH	Data radio cable - KPC-9612 ....Δ	1.99
5100YV	Data radio cable - KAM/KPC-3	15.99
5106	Open end - 6pin mini Ken/Yae cable	4.99
8708	4ch ham micro ATV transmitter	149.99
9015	5w 15m CW Xcvr	169.99
9020	5w 20m CW Xcvr	169.99
9030	5w 30m CW Xcvr	169.99
9040	5w 40m CW Xcvr	169.99
27	Handle for CW station	4.99
412	Plug-in Curtis keyer	49.99
726	Plug-in audio filter	29.99
971	200w portable ant tuner w/meter	99.99
1772	Portable 20m dipole	39.99
1774	Portable 40m dipole	39.99
4110	Portable AC power supply	49.99
4114	Rechargeable power pack	69.99
9117B	9017 Xcvr/tuner/ps/ant package ....Δ	199.99
9130B	9030 Xcvr/tuner/ps/ant package ....Δ	299.99
9140B	9040 Xcvr/tuner/ps/ant package ....Δ	299.99
9402X	7w PEP 2m SSB Xcvr w/mic	269.99
9406X	10w PEP 6m SSB Xcvr w/mic	249.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ - continued

	AES Price
9410X 20w PEP 10m SSB Xcvr w/mic	249.99
9420X 12w 20m SSB Xcvr w/mic	229.99
9440X 12w 40m SSB Xcvr w/mic	229.99
9475X 12w 75m SSB Xcvr w/mic	229.99
415B SSB Xcvr CW adapter; 9420X/9440X	49.99
416 CW adapter for 9402X/9406X/9410X	49.99
971 200w HF portable ant tuner w/meter	99.99
1770A 10m dipole for 9410X	39.99
4110 Portable AC power supply	49.99
4114 Rechargeable power pack	69.99

ACCESSORIES

1305 5v 300ma adapter ....D	$ 6.99
1306 6v 300ma adapter	14.99
1312 12vdc 300ma adapter, 2.5mm plug	14.99
1312D 12vdc 500ma adapter, 2.1mm plug	14.99
1316 12vdc 1.5A adapter	19.99
10-BCI-2 Charger cup; Icom BP-131/132 ...Δ	.69
10-BCI-3 Charger cup; Icom BP-173/180 ..Δ	.99
10-BCY-2 Cgr cup;Yae FNB10/11/12/17/27 ...Δ	.99
15 HamGear belt loop radio holder	14.99
18 HamGear chest harness/cargo pocket	29.99
92AA01 1300ma AA NiMH cell ....each	2.99
92AA10 10-pack 1300ma AA NiMH cells	24.99
201 1.5-250 MHz dip meter	109.99
202B RF noise bridge	59.99
204B HF Antenna bridge	79.99
206 Antenna current probe ....D	29.99
207 160-10m SWR analyzer	79.99
208 2m SWR analyzer	79.99
209 1.8-170 MHz SWR analyzer	129.99
212 MatchMaker tune up device	79.99
218 SWR analyzer, 150-170MHz ....D	29.99
219B SWR analyzer, 440 MHz/N/SO-239 adapt	89.99
224 2m FM signal analyzer	149.99
249B 1.8-170 MHz SWR analy/LCD counter	219.99
259B 1.8-170 MHz SWR analy/RF res meter	239.99
269 1.8-170+440 MHz SWR analy/RF res mtr	319.99
29C Carrying case w/window; 209/249B/259B	24.99
39C Carrying case w/window; 269	24.99
66 1.8-30/30-170 dip coils; 209/249B/259B	19.99
92AA10 10-pack 1300ma AA NiMH cells	24.99
98 Package of 39C/66/1312D for 269	54.99
98B Pack of 92AA10/39C/66/1312D for 269	77.99
99 Pack of 29C/66/1312D; 209/249B/259B	54.99
99B Pack; 92AA10/29C/66/1312D; 209/249B/259B	77.99
99C Pack - 92AA10/1312D; 209/249B/259B/269	34.99
731 RFI filter for SWR analyzer	89.99
1312D 12vdc 500ma ps for SWR analyzers	14.99
270 Guardian Angel 400w PEP lightning protect	29.99
97 Gas tube plug for 270	9.99
281 ClearTone communications speaker	12.99
288I Headset/mic; Icom/ADI/Sta/RS/older Yae	24.99
288K Headset/mic for Kenwood	24.99
288Y Headset/mic; Ico Q7/Yae FT10/50/VX1	24.99
291K Earphone for Kenwood spkr/mic ....D	1.99
292I Earph/mic; Ico/older Yae/compatibles	17.99
292Y Earphone/mic; Ico Q7/Yae FT10/50/VX1	17.99
293I Rubber flex earloop earbud/mic; Icom	24.99
293K Rubber flex earloop earbud/mic; Kenwood	24.99
293Y Rubber flex earloop earbud/mic; Yaesu	24.99
295I Mini spkr/mic; Icom & compatible HT	15.99
295K Mini spkr/mic; Kenwood & compatible HT	15.99
295Y Mini spkr/mic; Ico Q7/Yae FT10/50/VX1	15.99
297 Desk mic with flexible boom	69.99
5082 Open end - 8-pin mic cable for 297	9.99
5268 Open end - mod phone plug cbl; 297	9.99
5397I Cable/8-pin for 297; Icom HF	15.99
5397K Cable/8-pin for 297; Kenwood HF	15.99
5397Y Cable/8-pin for 297; Yaesu HF	15.99
5397MX Cable/modular for 297; Icom/Kenwood	15.99
5397MY Cable/modular for 297; Yaesu	15.99

MFJ - continued

	AES Price
310 BNC HT antenna window mount clip	14.99
341M 17' antenna cable; NMO	19.99
341S 17' antenna cable; SO-239	19.99
382 Deluxe amplified communications spkr	39.99
384 Dlx amp spkr w/speech control knob	29.99
1306 6v 300ma adapter for 384 only	14.99
388 Cyber Ear 12db ear amplifier	29.99
392B Deluxe communication headphones	19.99
394 Boom mic/single headphone ....D	49.99
5396I Adapter; 394/396 with Ico Xcvr ....D	6.99
5396K Adapter; 394/396 with Ken Xcvr ...D	6.99
5396Y Adapter; 394/396 with Yae Xcvr ...D	6.99
414 Professional Morse Tutor w/LCD	189.99
417 Code Tutor with QSO	59.99
418 Code Tutor with LCD display	79.99
434 Deluxe Voice Memory Keyer	169.99
73 Remote control head w/cable for 434	29.99
461 Pocket size Morse code reader	79.99
5161 DB-9 PC serial port cable	14.99
5162 Cable for radio external speaker	5.99
462B RTTY/ASCII/CW/AMTOR Rcvr multi-reader	169.99
5162 Cable for radio external speaker	5.99
464 CW reader w/built-in keyer	169.99
550 Hand key	7.99
554 Deluxe CW practice oscillator	79.99
557 Code oscillator w/key	29.99
616 Speech intelligibility enhancer	159.99
1316 12vdc 1.5A adapter	19.99
281 ClearTone speaker (requires 2)	12.99
392B Deluxe communication headphones	19.99
631 Trickle wall charger; NiMH/nicad AA	9.99
633 Rapid charger; NiMH/nicad AA/AAA/9V	24.99
641-Y3 Battery charger;Yaesu FNB-31/33 ..Δ	9.99
10-BCY-3 Charger cup; Yae FNB-31/33 ..Δ	.99
662 Simplex pocket repeater	79.99
701 Toroid RFI filters ....pack of 4	14.99
704 1kw low-pass filter	49.99
711 High pass filter ....D	24.99
762 81db 170MHz BNC attenuator	69.99
801 Super compact field strength meter	19.99
802 Bipolar field strength meter	39.99
802R Field strength remote meter	24.99
802X Field strength/remote meter combo	59.99
805 RFI current detector meter	79.99
850 AC line voltage monitor	19.99
852 Power line noise current meter	89.99
854 HF RF current meter	89.99
886 1MHz - 3GHz pocket frequency counter	109.99
888 Deluxe 10Hz - 3GHz frequency counter	174.99
890 DX beacon monitor	99.99
912 W9INN remote balun	49.99
916 2m/440 duplexer	29.99
931 Artificial ground unit	89.99
1025 Noise canceling antenna	149.99
1026 Deluxe noise canceling unit w/antenna	169.99
1046 1.6-33MHz receiver passive preselector	89.99
1048 1.6-33MHz Xcvr passive preselector	109.99
1112 Multiple DC outlet	34.99
1116 Dlx multiple DC outlet	49.99
1117 High current multiple DC outlet	54.99
1118 Dlx high current multiple DC outlet	74.99
1213 Interface for JVFAX/HamComm	49.99
1262 Microphone switch; 8-pin round	79.99
1268 IBM PC memory keyer ....Δ	.69
1273B Basic soundcard interface/soft; 8P-R	59.99
1273BM Basic soundcard interface/soft; 8P-M	59.99
1275 Soundcard/rig interface/software; 8P-R	99.99
1275M Soundcard/rig interface/software; 8P-M	99.99
1279 Super soundcard interface/soft; 8P-R	129.99
1279M Super soundcard interface/soft; 8P-M	129.99
1292 Video digitizer for IBM ....Δ	6.99

MFJ - continued

	AES Price
1683I Rig Windows software for Icom ....D	1.99
1683K Rig Windows software for Kenwood .D	1.99
1683Y Rig Windows software for Yaesu ....D	2.99
5383YB Yaesu interface cbl; mini 6-pin DIN.Δ	9.99
1700B Combination ant/xmtr switch	79.99
1701 6-position coax switch	49.99
1702C 2-pos coax switch/lightning protect	24.99
1702CN 2-pos 1.1GHz N switch/lightning protect	34.99
1704 4-pos 500 MHz switch/lightning protect	64.99
1704N 4-position type N switch	74.99
1925 Controller; Yaesu ATAS-100/other rigs	59.99
1925I2 Controller; Yae ATAS-100/Ico IC-706	59.99
4035MV Dlx 30A adjustable ps, 35A surge	139.99
4103 Switching power supply for Yaesu FT-817	39.99
4125MV MightyLite 22A 3.5 lb switch ps, 25A surge	99.99
4225MV MightyLite 22A switching ps, 25A surge	139.99
4245MV MightyLite 40A switching ps, 45A surge	189.99

MG Electronics (MGE)

HFS-1 10w mobile spkr, 3.5mm plug ....D	$ 9.99

MAGELLAN (MAG)

GPS-310 12 ch GPS receiver ....D	$ 99.99
GPS-315 12 ch GPS receiver ....D	149.99
GPS-320 12 ch GPS receiver ....D	149.99
730275 External power cable w/cig adapter	17.99
730277 PC cable/cig adapter	39.99
00-19044-000 Lo prof ext ant; Tracker/ColorTrak Δ	39.99
00-19060-000 Pwr/data cbl; Tracker/ColorTrak Δ	6.99
00-19067-000 PC cbl/cig adapt; Tracker/ColorTrak Δ	14.99
MAP-330 12ch GPS Rcvr/8mb base map .. D	199.99
730275 External power cable w/cig adapter	17.99
730277 PC cable/cig adaper	39.99
980611 MapSend Topo CD-ROM	99.99
980613-01 MapSend Streets & Destinations CD	99.99
$25 rebate on MapSend from Magellan thru 6/29/03!	
Meridian XL GPS/plotter/detachable ant/case D	89.99
Meridian GPS GPS with 2MB base map ....D	199.99
Meridian Gold GPS with 16MB base map	299.99
Meridian Platinum GPS/16MB/compass/barometric	349.99
$50 rebate; Meridian Gold/Plat from Magellan thru 6/29/03!	
Meridian Color Handheld color GPS/16MB	499.99
980611 MapSend Topo CD-ROM	99.99
980613-01 MapSend Streets & Destinations CD	99.99
$25 rebate on MapSend from Magellan thru 6/29/03!	
SporTrak GPS receiver w/1MB memory	169.99
SporTrak Map GPS w/2MB mem/4MB map mem	199.99
$50 rebate; SporTrak Map from Magellan thru 6/29/03!	
SporTrak Pro GPS w/9MB mem/23MB map mem	269.99
$50 rebate; SporTrak Pro from Magellan thru 6/29/03!	
SporTrak Color Handheld color GPS/9MB	449.99
980611 MapSend Topo CD-ROM	99.99
980613-01 MapSend Streets & Destinations CD	99.99
$25 rebate on MapSend from Magellan thru 6/29/03!	

MAHA (MAH)

9V 8.4v 170ma 9v size NiMH batt cell ....ea	$ 8.99
AAA-T 1.2v 650ma AAA size NiMH batt cell ea	2.99
AA-FB 1.2v 1400ma AA NiMH batt w/tabs D.ea	2.99
4-AA-180 4-pack 1.2v 1800ma AA NiMH cells	14.99
MH-2A4 Slow charger for 4 max AA NiMH ...D	3.99
MH-C124S Reg cgr; 1-4 AA/AAA NiMH/NiCD	9.99
MH-C204F Quik cgr/condi; 2/4 AA/AAA NiMH/NiCD	24.99
MHS-DC-124 Cig adapter; MH-C124S/C204F	5.99
MH-C401FS 100min/5hr AA/AAA cgr w/4 AA NiMH	49.99
MH-BP-7 1000ma 13.2v Icom nickel hydride	69.99
MH-BP-8 1200ma 8.4v Icom nickel hydride	59.99
MH-BP-8H 1800ma 8.4v Icom nickel hydride	69.99
MH-BP-83 1300ma 7.2v Icom nickel hydride	49.99
MH-BP-132B 1300ma 12v Ico blk nick hyd/mic	59.99
MH-BP-132G 1300ma 12v Ico gray nick hyd/mic Δ	49.99
MH-BP-173 650ma 9.6v Icom nickel hydride	69.99

Maha - continued

	AES Price
MH-BP-180 1000ma 7.2v Icom nickel hydride .	49.99
MH-BP-196M 1350ma 9.6v Icom nick hydride	49.99
MH-BP-199 700ma 6v Icom nick hydride/clip .	55.99
MH-BP-200 680ma 9.6v Icom nick hydride/clip	59.99
MH-CNB-152 1000ma 12v Sta nickel hydride	59.99
MH-CNB-153 1300ma 7.2v Sta nickel hydride	49.99
MH-FNB-12 1000ma 12v Yaesu nickel hydride	59.99
MH-FNB-17 1000ma 7.2v Yaesu nickel hydride	49.99
MH-FNB-27 900ma 12v Yaesu nickel hydride	59.99
MH-FNB-31 650ma 4.8v Yaesu nickel hydride	49.99
MH-FNB-38 650ma 9.6v Yaesu nickel hydride	59.99
MH-FNB-40H 650ma 7.2v Yae nick hyd/ spg clip	59.99
MH-FNB-41 1000ma 9.6v Yae nick hyd/spg clip	55.99
MH-FNB-V47 1800ma 7.2v Yae nick hyd/spg clip	69.99
MH-FNB-V57 1500ma 7.2v Yaesu nickel hydride	49.99
MH-FNB-72 1700ma 9.6v Yaesu nickel hydride	59.99
MH-PB-8 1300ma 12v Kenwood nickel hydride	62.99
MH-PB-17 1300ma 12v Kenwood nickel hydride	69.99
MH-PB-18 1300ma 7.2v Ken nick hyd; wall cgr only	49.99
MH-PB-32 1000ma 6v Kenwood nickel hydride	47.99
MH-PB-34 1000ma 9.6v Kenwood nickel hydride	57.99
MH-PB-39 1050 ma 9.6v Ken nickel hyd/clip ...	59.99
MH-PB-39H 1800ma 6v Ken nickel hyd/clip	59.99
MH-C777 Univ cgr/conditioner/cig cord; nicad/nimh	49.99
MHS-CW4 Clip-leads for external charging	3.99
MH-C777 Plus Univ cgr/analy; lith/nicd/nimh D	69.99
MH-C777 Plus II Univ cgr/analy; lith/nicd/nimh	89.99
MH-C888 Univ drop-in rapid cgr/cond; nicad/nimh	59.99
MHS-C800U External charger pin shell ...†	9.99
MHS-C801 Cup; T2/W32/TH22/79/FT10/50	7.99
MHS-C802 Cup; IC02AT/TH78/FT470/530 ..	7.99
MHS-C803 Cup; Kenwood TH-D7A/G71A	7.99
MHS-C804 Cup; Icom IC-T8A/T81A	7.99
MHS-C805 Cup; Yaesu FT-11/41/51R	7.99
MHS-C806 Cup; Ali 195/580/F1/G5/V5/etc	7.99
MHS-DC-777 Cig lighter cord	5.99
MH-101-I1 Cgr;Ico157/160/174/131/2/Mah 132B/G D	6.99
MH-101-Y1 Cgr;Yae 10/11/12/17/25/27/Mah 12/27 D	9.99
MH-101-Y2 Cgr;Yae FNB31/38/Mah MHFNB38 D	9.99
MH-800K 500mw spkr/mic w/clip; Kenwood .	19.99
MH-800S 500mw spkr/mic/clip; Ali/Ico/Sta/Yae	19.99
MH-800Y 500mw spkr/mic; Yae FT50/VX1R ..	24.99
MHS-I1 Ico 2G/02/2/32 adapt; A301/302 ...D	2.99
MHS-I2 Ico 2SAT/W2 adapter; A301/302 .....D	.99
MHS-I3 Ico 2GXAT/W21AT adapt; A301/302 D	2.99
MHS-I4 Ico W32/31/T7/22 adapt; A301/302 ...D	4.99
MHS-I5 Ico T8A/T81A adapter; A301/302 ...D	2.99
MHS-K1 Ken 25/26/75/77 adapt; A301/302 ....D	.99
MHS-K2 Ken TH22/79 adapter; A301/302 ...D	2.99
MHS-K3 Ken G71A/D7A adapt; A301/302 ...D	4.99
MHS-S1 ADI/Standard adapt; A301/302 .....D	2.99
MHS-Y1 Yae 23/411E/470 adapt; A301/302 ...D	2.99
MHS-Y2 Yae 26/415/530 adapt; A301/302 D	2.99
MHS-Y3 Yae FT11/41/51 adapt; A301/302 D	2.99
MHS-Y4 Yae FT10/40/50 adapt; A301/302 D	2.99

MALDOL (MAL)

AH-14 20m telescoping ant w/BNC; FT-817 ...	$ 45.99
AH-28 10m telescoping ant w/BNC; FT-817...	45.99
AH-C7 40m loading coil only w/BNC; FT-817	33.99
AH-C14 20m loading coil only w/BNC; FT-817	33.99
AH-C21 15m loading coil only w/BNC; FT-817	33.99
AH-C28 10m loading coil only w/BNC; FT-817	33.99
AH-R Telescoping whip for AH-C7/14/21/28	17.99
AH-510R 6/2m/440 37" BNC tele whip; FT-817/HT	59.99
AH-510R/SMA 6/2m/440 37" SMA tele whip	59.99
AS-20 2m/440 8.5" superflex SMA antenna ...	29.99
AS-25 2m/440 1" SMA antenna	19.99
AS-30 2m/440 15" 0/2.15db superflex SMA ant	29.99
AX-50 2m/440 0/5db 21" mobile antenna	46.99
AX-75 2m/440 3.2/5.7db 30" mobile ant	54.99

Maldol - continued

	AES Price
AX-95 2m/440 3.3/5.8db 38" mobile ant	59.99
EM-B80 Small trunk/hatch/van door lip mt ..	25.99
EX-104B 2m/440 black 0/2.15db 15" mob ...	41.99
EX-104BNMO 2m/440 blk 0/2.15db 15" NMO	41.99
EX-107RB 2m/440 black 2.6/4.9db 29" mob	52.99
EX-107RBNMO 2m/440 blk 2.6/4.9db 29" NMO	52.99
EX-510B 6m/2m/440 blk 0/2.15/5.5db 37" mob	62.99
EX-510BNMO 6m/2m/440 blk 0/2.15/5.5db 37" NMO	62.99
FVS-50 Dlx 2-step 16' 9" cable w/UHF connects	39.99
HVU-8 80/40/20/15/10/6/2m 8.6' vert w/radials	319.99
HMC-6S 20/15/10/6/2m/440 68" mobile ant	149.99
HMC-7C 40m loading coil for HMC-6S	34.99
MH-209 2m/440 3" BNC duck	23.99
MH-209SMA 2m/440 3" SMA duck	23.99
MH-510 6m/2m/440 0/0/3.2db 20.75" SMA duck	37.99
MH-511 6m/2m/440 4.25" SMA duck	33.99
MH-610 2m/220/440 0/1.8/3.2db 14" SMA duck	49.99
MK-30H Motorized tnk lip/hatch/van door mt	104.99
MSG-1000C 2m/440 2.15/5.5db 39" mobile D	49.99
MSG-1100C 2m/440 3.5/6db 43" mobile ....D	59.99
PR-212D 2m/440 6/8.5db 85" mobile ant	99.99
PR-212DNMO 2m/440 6/8.5db 85" NMO mob	99.99
PRM-T Large trunk/hatch/van door lip mt	29.99
SHG-140B 2m 4.1db 56" mobile antenna	54.99
SHG-140BNMO 2m 4.1db 56" NMO mob ant .	54.99
SHG-1500B 2m/440 blk 4.5/7.5db 59" mob D	59.99
SHG-1500BNMO 2m/440 blk 4.5/7.5db 59" NMO D	59.99

MAXON (MAX)

MX-49FX 5 ch 49 MHz ear mic Xcvr	$ 49.99
MX-49HX 5 ch 49 MHz boom mic/headset Xcvr ..	49.99
MX-49SX 49 MHz boom mic/headset Xcvr	29.99

MEADE (MEA)

0705-04-01 ETX-70AT Astro telescope w/tripod	$319.99
07025 #882 Extra std tripod .special order	99.99
07027 #884 Deluxe tripod	199.99
07137 1.25" 5mm Plossl lens	59.99
07139 1.25" 18mm WA lens	69.99
07220 #933 45° 1.25" erecting prism	74.99
07279 #670 dew shield	19.99
3514-03-04 ETX-90EC Astro telescope	495.99
0515-03-01 ETX-125EC Astro telescope	895.99
07027 #884 Deluxe tripod; ETX-90/125EC .	199.99
07436 #497 Autostar controller; ETX-90/125EC	149.99
20061 DS-60EC 60mm refractor telescope .D	169.99
07217 #928 45° 1.25" erecting prism; DS60/70/90	59.99
494 #494 Autostar controller; DS-EC-series ...	49.99
07170-02 1.25" 6.4mm super Plossl lens .	89.99
07173-02 1.25" 15mm super Plossl lens ...	89.99
07273 #126 1.25" 2x short-focus Barlow lens	59.99
20117 DS-2114ATS 114mm reflector telescope	399.99
20201 NGC-60 60mm refractor telescope	199.99
07137 1.25" 5mm Plossl lens	59.99
07139 1.25" 18mm WA lens	69.99
07522 908B broadband nebula filter .....Δ	69.99
CVB-1001 8x22 binoculars/digital camera .D	79.99

MIDLAND (MID)

22-410 Speaker/mic for 75-510XLB .....D	$ 4.99
23-505 1.5-150MHz dual meter SWR/power .	19.99
74-200 SAME weather/hazard alert radio/ps	49.99
74-210 FM/SAME weather/hazard alert radio/ps D	49.99
WR-30 FM/SAME weather/hazard alert radio/ps D	49.99
WR-300 AM/FM/SAME WX/hazard alert radio/ps	49.99

Miracle Antenna (MIA)

Miracle Whip 3.5-450MHz 57" QRP ant/tuner	$119.99

MIRAGE (MIR)

A-1015G 50-52 FM/SSB 10/150w amp/preamp	$349.99
B-34 2m FM 2/35w amplifier; no mob bkt	69.99
B-34G 2m FM/SSB 3.5/35w amp/preamp	89.99

Mirage - continued

	AES Price
B-215G 2m FM/SSB 2/150w amp/preamp ..D	279.99
B-310G 2m FM/SSB 4/100w amp/preamp	179.99
B-320G 2m FM/SSB 50/200w amp/preamp ..	429.99
B-1016G 2m FM/SSB 10/160w amp/preamp D	299.99
B-1018G 2m FM/SSB 10/160w amp/preamp	369.99
B-2518G 2m FM/SSB 25/160w amp/preamp	299.99
B-2530G 2m FM/SSB 25/300w amp/preamp	689.99
B-5018G 2m FM/SSB 50/160w amp/preamp	299.99
B-5030G 2m FM/SSB 50/300w amp/preamp ..	669.99
BD-35 2m/440 4/45//4/35w HT amp	149.99
BD-38/BD-38G 2m/440 4/80w HT amp/preamp	279.99
B-24G 5/50w 2m HT dock boost amp/pre	114.99
BD-25 5/45//5/35w 2m/440 HT dock boost	164.99
MI-1 Ico 2G/02/2/32 adapter; B24G/BD25	9.99
MI-2 Ico 2SAT/W2 adapter; B24G/BD25	9.99
MI-3 Ico 2GXAT/W21AT adapt; B24G/BD25	9.99
MI-4 Ico W32/31/T7/22 adapt; B24G/BD25	9.99
MK-1 Ken 25/26/75/77 adapt; B24G/BD25	9.99
MK-2 Ken 22/79 adapter; B24G/BD25	9.99
MS-1 ADI/Standard adapter; B24G/BD25 ..	9.99
MY-1 Yae 23/411E/470 adapt; B24G/BD25 .	9.99
MY-2 Yae 26/415/530 adapt; B24G/BD25 .	9.99
MY-3 Yae FT11/41/51 adapt; B24G/BD25 ..	9.99
MY-4 Yae FT10/40/50 adapt; B24G/BD25 ..	9.99
C-22G 220 FM/SSB 2/20w amp/preamp	154.99
C-211G 220 FM/SSB 2/110w amp/preamp	329.99
C-1012G 220 FM/SSB 10/120w amp/preamp	329.99
C-1022G 220 FM/SSB 10/220w amp/preamp	689.99
C-2512G 220 FM/SSB 25/120w amp/preamp	309.99
C-5022G 220 FM/SSB 50/200w amp/preamp Δ	399.99
D-15N 430 FM/SSB/ATV 2/15w type N amp ...	169.99
D-26N 440 FM/SSB 2/60w type N amplifier ..	259.99
D-1010N 440 FM/SSB 10/100w type N amp .	379.99
D-3010N 440 FM/SSB 30/100w type N amp .	349.99
D-1010-ATVN 430 ATV 10/100w type N amp .	399.99
RC-1* Remote control head w/18' cable	45.99
*Not for B-23/C-22/D-26	
RC-2 Rem ctl head/cable; B-XX18G	45.99

The following Repeater Amplifiers are Special Order. Specify SO-239 or type N connectors

A-1015NR 6m FM 2/80w type N amplifier	$549.99
A-1015R 6m FM 2/80w SO-239 amplifier	529.99
C-211NR 220 FM .5/80w type N amplifier	619.99
C-211R 220 FM .5/80w SO-239 amplifier	599.99
C-1012NR 220 FM 5/90w type N amplifier ...	619.99
C-1012R 220 FM 5/90w SO-239 amplifier	599.99
C-2512NR 220 FM 15/90w type N amplifier .	589.99
C-2512R 220 FM 15/90w SO-239 amplifier ..	569.99
D-1010NR 440 FM 4/80w type N amplifier ...	629.99
D-3010NR 440 FM 12/80w type N amplifier .	599.99
D-1010-ATVN-R 430 ATV 4/80w type N amp .	629.99

PREAMPS

KP-1/10M 10m in shack preamp	$129.99
KP-1/6M 6m in shack preamp	129.99
KP-1/2M 2m in shack preamp	129.99
KP-1/220 220 in shack preamp	129.99
KP-1/440 440 in shack preamp	129.99
KP-2/10M 10m mast mount preamp .....Δ	139.99
KP-2/6M 6m mast mount preamp	179.99
KP-2/2M 2m mast mount preamp	179.99
KP-2/220 220 mast mount preamp .....Δ	149.99
KP-2/440 440 mast mount preamp	179.99

WATTMETERS

MP-3 420-450 5/50/150w PEP wattmeter	$249.99

MOTOROLA (MOT)

50226 Headset w/microphone for FRS .....Δ	$ 14.99
53834 Rosewood T5200 Alkaline FRS .....D	39.99
56360 Black T6220 Alkaline FRS .....D	39.99
53725 Headset w/microphone	14.99

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

AES Price

NCG (NCG)

Power Pocket 12v 2AH lead acid belt batt/cgr $ 66.99

Night Owl Optics (NOO)

NOCC-3 3.1x42 night vision scope w/illuminator $199.99
NOCA-42 Camera adapter 49.99
NOLD-20 Lens doubler 49.99
NODS-5 5x48 night vision scope w/illuminator 299.99
NOCA-42 Camera adapter 49.99
NOXG-2 3x G2 night vision scope w/illuminator 999.99
NOCA-42 Camera adapter 49.99

NORCOMM (NOR)

NC-101 Tunable CTCSS encoder $ 21.99
NC-104 Programmable CTCSS encoder 26.99
NC-106 Prog CTCSS encoder/decoder 62.99
NC-401 Sub-miniature DTMF decoder 62.99

Oregon Scientific (ORE)

BA-812E The weather clock D $ 19.99
EMR-812A Wireless thermometer 29.99
THR-138 Extra wireless sensor; EMR-812A 24.99
PE-319 Pedometer with personal security 19.99
RGR-122 Wireless rain gauge w/LCD console 59.99
RM-116E Exactset radio controlled clock 29.99
WMR-112A Wireless weather station 199.99
WM-918 Dlx weather station w/rain gauge 229.99
WMR-968 Dlx wireless WX stn w/rain gauge 399.99
WR-102 Port WX/hazard radio/SAME alert 49.99
WR-196T AM/FM/SAME WX alert clock radio 69.99

OUTBACKER (OUT)

OB-8 75-10m 300w PEP 6' 8-band mobile ant $279.99
OB-8HP 75-10m 500w PEP 6' 8-band mob ant 299.99
OB-S8 75-10m 300w PEP split ant/storage bag 299.99
OB-8TRI 75-10m 300w PEP 3pc 6' port ant/bag 329.99
Joey 80-2m 20w antenna w/counterpoise 249.99
(ALP) **MicroMount** Tripod system for Joey 49.99
OB-M 75/40/20/17/10m/HF marine 300w PEP 6' 429.99
Perth 75-10m 150w PEP 7.5' mobile ant 289.99
Perth Plus 75-10m+6m/2m 150w PEP 6' mob ant 299.99
Stealth Plus 75-10m+6/2m 100w PEP 4' ant 269.99
Outreach 160-10m 300w PEP 12' antenna 399.99
Outreach 500 80-6m 600w PEP 12' antenna 439.99
(ALP) **Outpost** Base tripod mtg sys for mob ant 199.99
OB-SB ⅜-24 spring and ½" hole base 99.99
Diamond K-400-3/8C ⅜-24 trunk mt, 6' coax 69.99
Diamond C-110 10' ext cable; K-400-3/8C 14.99

PACCOMM (PAC)

HandiPacket Small TNC for handhelds Δ $189.99
Spirit-2 Std high performance controller Δ 209.99
Tiny-2 Mk-2 Multi-purpose TNC Δ 129.99

Palomar Engineers (PAL)

MSB-3 Magnetic switch receive balun D $ 14.99
PT-340 Tuner-Tuner (use with ant tuner) 99.99
RFI-4 RF interference kit 25.99
SMB-5 SmartBridge prog; AT computers D .29
VLF-A VLF converter; 10-500 KHz to 80m 99.99
VLF-S VLF conv; 10-500 KHz to 4-4.5 MHz 99.99

PAR (PAR)

OA-28 10m horizontal omni antenna $ 74.99
OA-50 6m horizontal omni antenna 69.99
SK-50 Stacking harness for OA-50 36.99
OA-144 2m horizontal omni antenna 54.99
SK-144 Stacking harness for OA-144 34.99
OA-222 220 horizontal omni antenna 54.99
SK-222 Stacking harness for OA-222 Δ 14.99
OA-432 430 horizontal omni antenna 54.99
SK-432 Type N stacking harness; OA-432 54.99
SM-20 6m 2el stressed moxon 5.8db beam 79.99

Par - continued

AES Price

UHFDN450 440 dual band notch filter 69.99
VHFDN152 2m dual band notch filter 69.99
VHFDN152HT 2m dual band HT notch filter 68.99
VHFTN152-158 2m dual band+pager notch filt 82.99
UHF-12 12" RG58/silver/gold/tef PL259s 9.99

PENETROX (PEN)

Penetrox A 4 oz tube for antennas $ 12.99

POLICE CALL (POL)

Vol 3/4 2003 IL/IN/KY/MI/OH/WI book/48 state CD $ 19.99
Vol 5/8 2003 AZ/CO/IA/NV/others book/48 state CD 19.99

POLYPHASER (PLY)

LIGHTNING PROTECTION

IS-50NX-C2 125-1000 375/125/50w N flange $ 61.99
IS-50UX-C0 1.5-400 2kw/375/125w flange mt 61.99
IS-50UX-C1 50-700MHz 375/125w flange mt 61.99
IS-B50LN-C2 125-1000 375/125/50w N bulkhead 64.99
IS-B50LU-C0 1.5-400 2kw/375/125w bulkhead 64.99
IS-B50LU-C1 50-700 375/125w bulkhead mt 64.99
IS-IE50LU-C0 1.5-400 dlx 2kw/375/125w bulk 129.99
IS-IE50LU-C1 50-500 dlx 375/125w bulkhead Δ 49.99
IS-IE50LN-C1 50-700 dlx 375/125w N bulkhead 117.99
BF Adapter Bulkhead to flange mt adapter 9.99
FB Adapter Flange to bulkhead mt adapter 11.99
IS-PLDO-120-15A 120v 15A power protector 172.99
IS-PLDO-120-20A 120v 20A power protector 215.99
IS-RCT 8-wire rotor control protector 54.99
J-1 ½" to 1⅓" bronze transition clamp 8.99
J-2 1½" to 2¼" bronze transition clamp 12.99
IS-SPTL Single phone line protector 57.99
CS112-25 25' 1½" copper strap 25.99
CS112-50 50' 1½" copper strap 51.99
CS112-75 75' 1½" copper strap 75.99
CS112-100 100' 1½" copper strap 99.99
CS3-25 25' 3" copper strap 51.99
CS3-50 50' 3" copper strap 99.99
CS3-75 75' 3" copper strap 149.99
CS3-100 100' 3" copper strap Δ 169.99
CU-SPGP Copper single point ground panel 69.99
TK-2 1½" strap to Rohn twr corrosion free clamp 5.99
TK-3 1½" strap-2¼" to 3¾" mast corr free clamp 8.99
1C-112S #6-#1 wire to 1½" strap clamp bond 10.99
58R-112S 1½" strap to ⅝" gnd rod clamp bond 12.99
MSC-3 Junc; 2+ 1½" or 3" strap clamp bond 10.99
UNI-KIT 2CT Gnd kit; coax to alum/tin/galv 29.99
UNI-KIT 2TC Gnd kit; galv twr leg to copper 32.99
UNI-KIT 2CC Ground kit; coax to copper 28.99
CCK Copper cleaning kit; 4 oz can, brush 27.99
GLEP Lightning and EMP Protection book 20.00

PREMIER (PRE)

AL-800 2m/440 34" BNC rubber duck ant $ 29.99
RD-2 2m/440 2" BNC duck 14.99
RD-2SMA 2m/440 2" SMA duck 15.99
RD-8 2m/440/900 6.5" BNC duck 14.99
RD-9 2m/440/900 7" BNC duck 18.99
RD-9SMA 2m/440/900 7" SMA duck 20.99
RD-78 2m/440/900 15" BNC whip 19.99
RD-98 2m/440 17" BNC whip 24.99
RD-98SMA 2m/440 17" SMA whip 27.99
SPM-100 Spkr/mic; ADI/Alinco/Icom/Yaesu 27.99
SPM-101 Spkr/mic for Kenwood 27.99
SPM-102 Spkr/mic; Yaesu FT-50R/VX-1R/5R 27.99
SPM-301 Spkr/mic/PTT lock/volume; Ken Δ 4.99
SPM-400A Boom/mic; ADI/Alinco/Icom/Yaesu 39.99
SPM-402A Boom mic; Yae FT-50R/VX-1R/5R 39.99
PCA-IVHF Cable/modular; Icom VHF Δ 2.99
PCA-YHF Cable/8-pin; Yaesu HF Δ 4.99
PCA-YVHF Cable/modular; Yaesu VHF Δ 1.99

Premier - continued

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PCA-Y100 Cable; Yaesu FT90/100/2600 Δ 1.99

PRO AM by VALOR (VAL)

VHF/UHF ANTENNAS ONLY (No Mounts)

MO144-440 2m/440 antenna only $ 21.99
PAQA 136-515 MHz ¼ wave antenna only 8.99
PHB-144 2m ⅝ wave 3 db antenna only 31.99

MOUNTS ONLY FOR ABOVE ANTENNAS

PAM Low profile magnet mount w/coax $ 24.99
PAMB Black low profile mag mount w/coax 24.99
PAN38 ⅜-24 antenna to NMO mt adapter 14.99
PAS ¾" surface mount w/coax 19.99
PASMO ¾" surface mt only (no coax) 7.99
PAS38 ⅜" surface mount w/coax 19.99
PAT-2 No hole trunk mount w/coax 19.99
PAT-2B Black no hole trunk mount w/coax 19.99

OTHER VHF/UHF ANTENNAS & MOUNTS

100ADN SO-239 horizontal mirror mt $ 10.99
101ADN HD alum mirror mt w/SO-239 10.99
105AD Hvy duty ¾" mount assembly 6.99
105HD Heavy duty mount assembly 3.99
301 4" low profile ⅜-24 magnet mt w/coax 25.99
401 5" low profile ⅜-24 magnet mt w/coax 19.99
BNC-SC-RS Suction cup extension; ducks 19.99
DAK Mt for 2 vert ants or horizontal dipole 13.99
GM-144 2m 2.5db on glass antenna 29.99
GM-270 2m/440 2.6/6.3db on glass antenna 59.99
TGMKD On glass replacement mtg kit 8.99
MM-3401 Maxi-mag mt ⅜-24 kit (3-5" mags) 59.99
MM-3401B Blk mag mt ⅜-24 kit (3-5" mags) D 59.99
SS-100MOT 3-way NMO mirror mt w/coax 23.99
CX-144 2m ⅝ wave 3db ⅜-24 whip 17.99
MM-270B 2m/440 mini mag mt ant w/BNC 19.99
PM-144-440BN 2m/440 BNC mag mt ant 33.99
TGS 30-1200MHz on-glass scanner ant 39.99
VAA-002B 144-450 black ¼ wv mag mt ant 23.99
VAA-002BBN 144-450 black ¼ wv BNC mag ant 27.99
120 Sawtooth hump mt for mobile radios 7.99
D-270 2m/440 100w duplexer 39.99

MOBILE HF ANTENNAS (No Mounts)

AB-5 75/40/20/15/10m antenna $119.99
PHF-160 160m 8' ⅜-24 whip 97.99
PHF-75 75m 8' ⅜-24 whip (4' coil, 4' whip) 29.99
PHF-40 40m 8' ⅜-24 whip (4' coil, 4' whip) 23.99
PHF-30 30m 8' ⅜-24 whip (4' coil, 4' whip) 23.99
PHF-20 20m 8' ⅜-24 whip (4' coil, 4' whip) 23.99
PHF-17 17m 8' ⅜-24 whip (4' coil, 4' whip) 23.99
PHF-15 15m 8' ⅜-24 whip (4' coil, 4' whip) 23.99
PHF-12 12m 8' ⅜-24 whip (4' coil, 4' whip) 23.99
PHF-10 10m 8' ⅜-24 whip (4' coil, 4' whip) 23.99
PHF-6 6m 58" ⅜-24 whip 23.99
103S Quick disconnect/5 twist lock connectors 24.99

QRZ (WAL)

Ham QRZ US & international calls plus programs $ 29.99

QSL Card Holders (ART)

QSL Card Holders, pack of 3, 20 cards/holder $ 18.99

RCA (RCA)

108 F-56 connector w/o-ring for TV coax $ .49
AH-19 6' audio cable w/RCA plugs 2.99
AH-211 25' audio cable w/RCA plugs 6.99
ANT-1020 VHF TV/UHF TV/FM indoor antenna 19.99
TA-25 25db VHF/UHF TV/FM distribution amp 19.99
VH-84 6' audio/video cable w/gold RCA plugs 5.99

RF INQUIRY (RFI)

CF250E-UHF 250w 1.8-70 common mode filter $ 89.99
CF5KV-UHF 5kw 1.8-70 common mode filter 124.99

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RF PARTS (See Diamond)

Radio Am Callbook (RAC)

059677 2003 World Radio TV Handbook ..... $ 24.95
087654 Winter 03 N Am/Int CD-ROM callbook D 49.99

RAMSEY (RAM)

AA-7 Active antenna kit ..... $ 34.99
AR-1 Aircraft receiver kit 39.99
CW-7 CMOS keyer kit 29.99
DF-1 Foxhound direction finder kit 69.99
FR-1 FM broadcast receiver kit 29.99
HR-20 20m receiver kit 34.99
HR-40 40m receiver kit 34.99
QRP-20 20m CW transmitter kit 34.99
QRP-40 40m CW transmitter kit 34.99
RFS-1 RF sensed switch kit 19.99
SCA-1 SCA decoder kit 34.99
SR-2 Shortwave receiver kit 39.99
TS-1 CW touch paddle switch kit 9.99
UT-5 Universal timer kit 9.99
VS-1 Voice activated switch kit 9.99

RANGER (RAN)

RCI-2950DX 10/12m 25w SSB/10w FM/AM/CW $269.99
RCI-2970DX 10/12m 150w SSB/50w FM/AM/CW 399.99
RCI-5054DX 6m 25w SSB/10w FM/AM/CW ... 269.99

SGC (SGC)

04-01 SG-2000 150w 1.8-30 MHz 12v Xcvr 1599.99
04-11 Std SG-2000 rem head/bkt/20' cable 589.99
04-15 Remote mobile head/mem ch's only 449.99
51-82 Fan kit for continuous duty xmit 269.99
04-10 SG-2000 Xcvr w/DSP/PowerTalk head .. 1849.99
04-23 SG-2000 Xcvr/DSP/PowerTalk remoted 2099.99
04-12 Remote kit w/swivel bkt & cable ..Δ 99.99
04-22 PowerTalk remote head .....Δ 699.99
52-34 RS-232 interface; SG-2000 Xcvr ..Δ 149.99
52-51 CA-1 High voltage feed wire Δ,per ft. .49
52-53 CA-230 Ant coupler cable Δ,per ft. 2.99
52-54 CA-2000 Rem head cable ..Δ,per ft. 2.99
53-04 PS-30 30A/40A peak unreg ps ....Δ 329.99
53-05 PS-50 50A/70A peak unreg ps 419.99
52-61 PSC/12-1 12' ps cable, 1 plug .Δ 39.99
52-62 PSC/12-2 12' ps cable, 2 plugs Δ 49.99
05-01 SG-2020 Mini 20w PEP QRP Xcvr/mic 675.99
05-02 SG-2020 Mini 20w PEP QRP Xcv/mic/ADSP D 795.99
05-04 SG-2020 Mini 20w PEP QRP Xcv/mic/ADSP2 795.99
54-22 SG-239 200w Smartuner 179.99
52-96 SG-500 1.8-24MHz 12v 500w PEP amp 1249.99
51-82 Fan kit for continuous duty xmit 269.99
54-14 SG-230 200w 1.8-30 MHz 12v Smartuner 489.99
54-61 25' extension cable 60.99
54-62 50' extension cable 90.99
54-63 SmartLock; tuners made after 9/1/93 59.99
54-15 SG-235 500w 1.8-30MHz 12v Smartuner 1169.99
54-17 SG-231 HF+6m 12v Smartuner 529.99
54-18 SG-237 100w PEP HF+6m mini Smartuner ... 359.99
54-19 SG-237 PCB only 100w PEP Smartuner 249.99
54-22 SG-239 200w Smartuner 179.99
54-23 Stealth Kit SG-237 w/loop antenna ... 399.99
55-04 SG-103 1.8-30MHz 150w dipole 229.99
55-06 SG-104 2-28 MHz 90' 1kw dipole 629.99
55-27 SG-303 1.8-30 9' mobile whip & mt . 449.99
55-67 Replacement whip for SG-303 ..... 249.99
55-28 SG-307 1.8-60 7' mobile whip & mt . 449.99
55-47 QMS-2 Quick mt sys w/SG-230/303 whip 895.99
55-48 QMS-3 500w antenna system 2169.99
55-49 QMS-7 Quick mt sys w/SG-231/307 whip 1249.99
55-50 QMS-37 Quick mt sys/SG-237, less whip 549.99

SAMLEX (SAM)

SEC-1223 23A switching ps w/fan, 24A surge $ 99.99

AES Price

SANGEAN (SAN)

ATS-404 AM/FM/SW portable receiver w/case ... $ 79.99
ATS-505P AM/FM/SW portable receiver 129.99
ATS-606A AM/FM/shortwave portable receiver 149.99
ATS-818 AM/FM/shortwave portable receiver 179.99
ATS-818CS AM/FM/SW port Rcvr w/cassette . 229.99
ATS-909 AM/FM/shortwave portable Rcvr 249.99
DT-200V AM/FM/VHF TV sound dig port Rcvr 69.99

SEQUOIA (SEQ)

POCKET PC REF Pocket PC reference book ... $ 14.99
POCKET REF Pocket reference book 12.99
WinRef 98-95 Windows pocket reference book 9.99

SHAKESPEARE (SHA)

396-1 3 db, 5' VHF marine ant, less mount .. $ 59.99
5101 6 db, 8' VHF marine ant, less mount ... 49.99
5202 6db 8' VHF mar ant/chrome ferrule, less mt 69.99
5206-C Econo 8' VHF mar ant/chrome ferrule, no mt 39.99
495 White plastic lift & lay mount 16.99
4187 Stainless steel ratchet mount 36.99
420 3db, 5' VHF marine ant w/fold-down mt 59.99

SHURE (SHU)

526T Series II Dyn amplified desk mic .....D $124.99
R96 Replacement cartridge .....Δ 27.99

Smiley Antenna (SMI)

270A 2m/440 gain telescopic whip ..... $ 19.99
270A/SMA 2m/440 gain tele whip w/SMA 19.99
5/8 SLD-2 2m ⅝ Slim Duck rubber ant 17.99
5/8 SLD-220 220 ⅝ Slim Duck rubber ant 17.99
5/8 SLD-440 440 ⅝ Slim Duck rubber ant 17.99
5/8 SLD-2 Combo 2m ⅝ duck & stubby ant .. 24.99
5/8 SLD-220 Combo 220 ⅝ duck & stubby ant 24.99
5/8 SLD-440 Combo 440 ⅝ duck & stubby ant 24.99
FLX 1/2 WAV-2M ½ wv 2m BNC whip/flex coil 25.99
RD-2 2m rubber duck antenna 14.99
RD-220 220 rubber duck antenna 14.99
RDMD-2 2m mini rubber duck antenna 14.99
RDMD-220 220 mini rubber duck antenna .Δ 9.99
RDMD-440 440 mini rubber duck antenna ... 14.99
RDS-2 2m stubby rubber duck antenna 14.99
RDS-220 220 stubby rubber duck antenna ... 14.99
RDS-440 440 stubby rubber duck antenna ... 14.99
SD-2 2m Slim Duck thin rubber antenna 14.99
SD-220 220 Slim Duck thin rubber antenna . 14.99
SL-440 440 slimline type duck 12.99
SS-II Super Stick 2m ⅝ wv telescopic ant 19.99
SS-III Super Stick 220 ⅝ wv telescopic ant .. 19.99
SS-IV Super Stick 440 ⅝ wv telescopic ant ... 19.99
SS-II/Combo 2m ⅝ wv telescopic & stubby ant 26.99
SS-III/Combo 220 ⅝ wv telescopic & stubby ant 26.99
SS-IV/Combo 440 ⅝ wv telescopic & stubby ant 26.99
TAQ-2 2m ¼ wave stainless whip 10.99
TAQ-220 220 ¼ wave stainless whip 10.99
TAQ-440 440 ¼ wave stainless whip 10.99
TS Thin Stick 2m/220 ⅝ wave telescopic whip 16.99

SOLARCON (SOL)

A-99 10m/CB 17' 8" fiberglass base ant ..... $ 64.99
GPK-1 Ground plane radial kit 39.99

SONY (SON)

SHORTWAVE

ICF-SW07 AM/FM/SW micro Rcvr w/ps $399.99
ICF-SW11 AM/FM/SW compact receiver 49.99
ICF-SW12 AM/FM/SW travel Rcvr/world clock ... 99.99
ICF-SW35 AM/FM/SW portable receiver 89.99
ICF-SW40 AM/FM/SW port receiver 129.99
ICF-SW77 AM/FM/SW portable receiver 469.99
ICF-SW100S AM/FM/SW portable receiver 349.99

Sony - continued

AES Price

ICF-SW1000T AM/FM/SW port Rcvr/cassette ... 399.99
ICF-SW7600GR AM/FM/SW portable receiver 179.99
AC-E60HG 6vdc 400ma AC adapter .....D 22.99
AN-1 LW/MW/SW indoor/outdoor active rcv ant 99.99
AN-102 LW/MW/SW indoor active rcv ant ... 79.99
AN-LP1 Folding active loop ant w/case 89.99

Super Antennas (SUA)

MP-1 Portable 150w 7-50Mhz antenna .....Δ $129.99
FT817MKT MP-1 mounting bkt for FT-817 Δ 16.99
MBKT MP-1 mob kit (4' whip & 2' base rod) Δ 15.99
MP-80 80m coil for MP-1 .....Δ 19.99
TRPD Tripod for MP-1 .....Δ 19.99
YP-2 Port 2el 20-6m 6-band beam w/carry bag Δ 299.99

SUPERIOR (SUP)

18640 Universal grip-type adjustable HT cradle D $ 14.99
(HOU) **CPM-310** 6" adjustable pedestal mt Δ 14.99

Synthetic Textiles (SYN)

100' 3/32" black double braided rope ..... $ 7.99
100' 3/16 3/16" black double braided rope 16.99
100' 5/16 5/16" black double braided rope 22.99
350' 3/16" black double braided rope 44.99

TV GUARDIAN (TVG)

TV Guardian Foul language filter for TV/video $ 89.99

Terk Technologies (TER)

AF-9330 Indoor AM/amplified FM tower ant .. $ 24.99
AM-1000 Indoor passive fine-tunable AM ant 49.99
FM-50 Amplified indoor/outdoor FM ant kit.Δ 69.99
LF-20S 2.4GHz wireless video/audio system . 79.99
LF-IRX Remote control extender 39.99
LF-30S 2.4GHz wireless vid/aud sys/rem features 99.99
MOD-41 Deluxe RF modulator/switch 39.99
PI-B Indoor AM/amplified FM loop ant 49.99
TSP-6 AC/TV/telephone surge protector 29.99
TV-42 Clip-on mini dish mt amp TV ant; 2 LNB dish 59.99
TV-55 Indoor/outdoor TV antenna 89.99
TV-MAST TV antenna mast mount kit .....D 4.99

Times Microwave (TMS)

LMR-400 Standard ⅜" coax cable .....per ft. $ .64
LMR-400 .....500 ft. Roll 249.99
LMR-400-DB Watertight ⅜" coax cable per ft. .74
LMR-400-DB .....500 ft. Roll 299.99
LMR-400-UF UltraFlex ⅜" coax cable ...per ft. .98
LMR-400-UF .....500 ft. Roll 399.99

TIMEWAVE (TIM)

ANC-4 RF noise canceller $209.99
AC-1 12vdc 600 ma adapter 15.99
AC-5 12vdc 1.7A desktop ps 24.99
DSP-599zx All-mode DSP noise filter 436.99
AC-5 12vdc 1.7A desktop ps 24.99
DSP-RTTY RTTY prog; DSP-599zx/59Y .....D 19.99
PK-96/100K 9600 baud controller/128K RAM 219.99
(CSS) **PK-Term 99** Terminal prog; PK-96/232 79.99
AC-1 12vdc 600 ma adapter 15.99
AC-5 12vdc 1.7A desktop ps 24.99
PK-232/PSK Multimode controller w/sound card 531.99
(CSS) **PK-Term 99** Terminal prog; PK-96/232 79.99
AC-5 12vdc 1.7A desktop ps 24.99

TRIPP LITE (TRI)

PV-140 140w 12vdc-115vac inverter ..... $ 42.99
PV-300 300w 12vdc-115vac inverter 65.99
ISOBAR-8 ULTRA 8 outlet surge suppress/LEDs 79.99
SUPER-7 7 outlet surge suppressor 19.99
SUPER-7+TEL 7 outlet/fax modem surge 29.99

TUBES (TUB)

6146W Tube ..... $ 26.99

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

Tubes - continued

	AES Price
12BY7A Tube	12.99
3-500ZG-RFP High dissipation tube (3-500Z)	149.99
3-500Z Δ	199.99
572B Tube	49.99
811A Tube	19.99

US TOWER (UST)

FREE STANDING CRANK-UPS (not for T²X)

TX-438 38' crank-up tower T	999.99
TX-455 55' crank-up tower T	1599.99
TX-472 72' crank-up tower T	2479.99
TX-472MDP 72' crank-up w/motor drive	4549.99
TX-489MDPL 89' crank-up w/motor drive T	6439.99
TX-3106MDPLSP 106' crank-up/mot drive .T T	11699.99

FREE STANDING HD CRANK-UP TOWERS

HDX-538 38' crank-up tower T	1289.99
HDX-555 55' crank-up tower T	2399.99
HDX-572MDPL 72' crank-up w/motor drive .T	5929.99
HDX-589MDPL 89' crank-up w/motor drive .T	7729.99
HDX-689MDPL 89' HD crank-up w/motor T	15029.99
HDX-5106MDPL 106' HD crank-up w/motor T	16649.99

COMPACT TMM (Top mt rotor for full retraction)

TMM-433SS 33' crank-up tower T	1219.99
TMM-433HD 33' HD crank-up tower T	1477.99
TMM-541SS 41' crank-up tower T	1599.99

ACCESSORIES FOR CRANK-UP TOWERS

CX-2 Coax arms (2) for 2-section tower	$ 55.99
CX-3 Coax arms (3) for 3-section tower	77.99
CX-4 Coax arms (4) for 4-section tower	122.99
CX-5 Coax arms (5) for 5-section tower	150.99
CX-6 Coax arms (6) for 6-section tower	190.99
HDP Service platform T	813.99
STS-4 Rotor accessory for TX/TMM towers T	211.99
IV-16 Inverted vee arm for MA's	41.99
M-5 2" OD 5' mast extension for MA's	40.99
M-10 2" OD 10' mast T	77.99
M-15 2" OD 15' mast T	115.99
M-20 2" OD 20' mast T	136.99
M-15R 2" OD 15' reinforced mast T	156.99
M-20R 2" OD 20' reinforced mast T	207.99
CM-20 2" OD 20' cromolly mast T	489.99
MD-75 Heavy duty 1 HP motor drive T	997.99
MDP-750* Pull-down drive; TX-472/HDX-555 T	1551.99
MDPL-1000* Pull-down drive; HDX-572 T	2106.99

*Requires MCL-100 or RMC-1000. MDP-750 and MDPL-1000 not sold separately

MRF Mast raising fixture	268.99
MCL-100 Limit switch package	465.99
RMC-1000 Remote control w/limit switch	997.99
RP-3 Rotor plate for 10" section	39.99
RP-4 Rotor plate for 12½" section	47.99
RP-5 Rotor plate for 15" section	52.99
TRX-80 Raising fixture; TX-438/455;HDX-538/555 T	434.99
TRX-80HD Raising fixture;TX-472/489;HDX-572/589 T	571.99
TRX-100HD Raising fixture; HDX-689/5106 T	805.99
TB-2US Thrust bearing; 2" mast w/2 flange holes	110.99

MA-SERIES TUBULAR TOWERS

MA-40 40' crank-up mast T	$849.99
MA-550 55' crank-up mast T	1399.99
MA-550MDP 55' crank-up mast w/motor T	2899.99
MA-770* 70' crank-up mast T	2359.99
MA-770MDP* 70' crank up mast w/motor T	3999.99
MA-850* 85' crank-up mast T	3649.99
MA-850MDP* 85' crank-up mast w/motor T	5391.99

*Requires MAB or MARB-series base

MA-SERIES ACCESSORIES

CX-2M Coax arms (2) for MA-40	$ 59.99
CX-3M Coax arms (3) for MA-550	88.99
CX-4M Coax arms (4) for MA-770	133.99

US Tower - continued

	AES Price
CX-5M Coax arms (5) for MA-850	160.99
MAB-40 Hinged base for MA-40 T	361.99
MAB-550 Hinged base for MA-550 T	432.99
MAB-770 Hinged base for MA-770 T	522.99
MAB-850 Hinged base for MA-850 T	633.99
MAF-40 Raising fixture for MA-40	221.99
MAF-550 Raising fixture for MA-550 T	306.99
MAF-770 Raising fixture for MA-770 T	311.99
MAF-850 Raising fixture for MA-850 T	412.99
MARB-40 Rotor base accessory for MA-40 T	553.99
MARB-550 Rotor base accessory for MA-550 T	654.99
MARB-770 Rotor base accessory for MA-770 T	774.99
MARB-850 Rotor base accessory for MA-850 T	916.99

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UNADILLA (See W2AU)

UNIDEN (UNI)

PC-68LTW AM Mobile CB w/WX alert	$ 99.99
PC-68XL AM Mobile CB	79.99
PC-78LTW AM Mobile CB w/WX alert	119.99
PC-78XL AM Mobile CB	99.99
PRO-510XL AM Mobile CB	39.99
PRO-520XL AM Mobile CB	54.99
PRO-538W AM Mobile CB w/WX	59.99

UNIDEN BEARCAT

BC-244CLT 30 ch scanner w/instant WX	$ 99.99
BC-248CLT 50 ch scanner w/WX alert	109.99
BC-278CLT 100 ch scanner/SAME WX alert	169.99
BC-350A 50 ch prog/service search w/AC ps	109.99
BC-785D 1000 ch scanner/trunk/SAME WX	369.99
BCI-25D Digital board for BC-785D	299.99
BC-780XLT 500 ch scanner/trunk/SAME WX	299.99
BC-895XLT 300 ch prog scanner/trunking	199.99
BCT-7 Pre-prog warning scan/air/800/AC ps	169.99
BC-003 Switch box for BC-002 Δ	5.99
BC-004 RF preamp for BC-760XLT Δ	14.99
BC-60XLT-1 30ch prog pocket; use AA batts	89.99
BC-80XLT 50 ch prog pocket scanner/800	119.99
UA-502 Cig power cord	11.99
AD-100 AC adapter/batt cgr; earlier scanners Δ	16.99
AD-140 Extra charger; BC-100XLT/200XLT Δ	13.99
BP-200 Extra battery; BC-200XLT	26.99
BP-205 Extra battery; BC-100XLT	26.99
SC-180B 100 ch sport pocket/800 MHz	169.99
SC-200 200 ch sport pocket/800 MHz	199.99
AD-70 Extra charger	10.99
BP-120 Extra battery	18.99
LC-120 Carrying case; BC120XLT/230XLT	19.99
(KOS) **QZ/99** Noise reduction headphones	59.99
UA-502 Cig power cord	11.99
BC-245XLT 300 ch pocket/trunk/smart scan	219.99
AD-70 Extra charger	10.99
BP-180 Extra battery	16.99
CRX-120 Desk charger; BC-245XLT	24.99
LC-120 Carrying case	19.99
UA-502 Cig power cord	11.99
BC-250D 1000 ch pocket/trunk/SAME WX	369.99
BCI-25D Digital board for BC-250D	299.99
BP-250 Extra battery	14.99

Uniden - continued

	AES Price
WX-500 SAME weather/hazard alert/ps D	49.99
BP-2500 Extra batt; BC2500/3000 Δ	63.99
LC-150B Carrying case; SC-150B Δ	2.99
RFD-001 IN/IL/KY/OH/MI/WI freq book Δ	9.99
Atlantis 5w VHF marine handheld	99.99
HH-940P 1w submersible VHF marine HH D	119.99
HH-985 5w 90ch marine HH/SAME WX alert D	149.99
Voyager 5w VHF marine handheld/lith ion batt	159.99
Polaris 25w VHF marine Xcvr w/hailer	199.99
Solara 25w 90 ch VHF marine Xcvr	99.99
Oceanus 25w 90 ch VHF marine Xcvr	129.99

Unified Microsystems (UNM)

VK-64 CW/voice keyer	$249.99
KC-4 CW cable for VK-64 to transceiver	9.99
VKC-8 8-pin audio cable for VK-64 to Xcvr	24.99
XT-4 Small size CW memory keyer	69.99
KC-4 CW cable for XT-4 to transceiver	9.99
W9XT Contest card for IBM PC & compatible	149.99
CCC-4 4pin mic contest card cbl semi-kit Δ	44.99
CCC-8 8pin mic contest card cable semi-kit	44.99

UNI-SOLAR (UNS)

USF-5/FLX-5 5w flexible solar cell	$ 89.99
USF-32/FLX-32 32w flexible solar cell	269.99

Universal Towers (UNT)

4-30 4 sq ft wind load 30' alum tower T	$325.99
9-30 9 sq ft wind load 30' alum tower T	438.99
12-30 12 sq ft wind load 30' alum tower T	576.99
21-30 21 sq ft wind load 30' alum tower T	684.99
23-30 23 sq ft wind load 30' alum tower T	906.99
35-30 35 sq ft wind load 30' alum tower T	1021.99
4-40 4 sq ft wind load 40' alum tower T	546.99
7-40 7 sq ft wind load 40' alum tower T	686.99
9-40 9 sq ft wind load 40' alum tower T	765.99
12-40 12 sq ft wind load 40' alum tower T	906.99
15-40 15 sq ft wind load 40' alum tower T	1013.99
21-40 21 sq ft wind load 40' alum tower T	1125.99
23-40 23 sq ft wind load 40' alum tower T	1347.99
4-50 4 sq ft wind load 50' alum tower T	769.99
5-50 5 sq ft wind load 50' alum tower T	875.99
7-50 7 sq ft wind load 50' alum tower T	985.99
9-50 9 sq ft wind load 50' alum tower T	1095.99
15-50 15 sq ft wind load 50' alum tower T	1455.99
16-50 16 sq ft wind load 50' alum tower T	1570.99
4-60 4 sq ft wind load 60' alum tower T	1096.99
6-60 6 sq ft wind load 60' alum tower T	1344.99
7-60 7 sq ft wind load 60' alum tower T	1431.99
9-60 9 sq ft wind load 60' alum tower T	1534.99
3-70 3 sq ft wind load 70' alum tower T	1429.99
4-70 4 sq ft wind load 70' alum tower T	1756.99
6-70 6 sq ft wind load 70' alum tower T	1788.99
7-70 7 sq ft wind load 70' alum tower T	1869.99
3-80 3 sq ft wind load 80' alum tower T	1926.99
4-80 4 sq ft wind load 80' alum tower T	2231.99
2-90 2 sq ft wind load 90' alum tower T	2311.99
B-14 Base for tower	67.99
B-18 Base for tower	67.99
B-22 Base for tower	103.99
B-26 Base for tower	132.99
Extra **14" stubs** (between base & tower) .set	14.99
Extra **18" stubs** (between base & tower) .set	26.99
Extra **22" stubs** (between base & tower) .set	42.99
Extra **26" stubs** (between base & tower) .set	42.99
Extra **30" stubs** (between base & tower) .set	63.99
RFM-11 Flat roof mt for guyed tower	46.99
RFM-14 Flat roof mt for guyed tower	46.99
RFM-18 Flat roof mt for guyed tower	72.99
RFM-22 Flat roof mt for guyed tower	97.99

Universal - continued

	AES Price
RFM-26 Flat roof mt for guyed tower	129.99
R-11 Rotor mount	32.99
R-14 Rotor mount	49.99
R-18 Rotor mount	65.99
SEE LITERATURE FOR TOWER CONFIGURATIONS	
11 Top 11" top tower section T	110.99
14 Top 14" top tower section T	138.99
18 Top 18" top tower section T	252.99
14 Taper 14" taper tower section T	122.99
18 Taper 18" taper tower section T	219.99
22 Taper 22" taper tower section T	327.99
26 Taper 26" taper tower section T	440.99
11 Straight 11" straight tower section T	108.99
14 Straight 14" straight tower section T	122.99
18 Straight 18" straight tower section T	219.99
22 Straight 22" straight tower section T	327.99
26 Straight 26" straight tower section T	440.99
HD35-40 35 sq ft wind load 40' alum tower T	1573.99
HD21-50 21 sq ft wind load 50' alum tower T	1677.99
HD9-60 9 sq ft wind load 60' alum tower T	1759.99
HD16-60 16 sq ft wind load 60' alum tower T	2119.99
HD21-60 21 sq ft wind load 60' alum tower T	2232.99
HD8-70 8 sq ft wind load 70' alum tower T	1979.99
HD12-70 12 sq ft wind load 70' alum tower T	2451.99
HD17-70 17 sq ft wind load 70' alum tower T	2674.99
HD21-70 21 sq ft wind load 70' alum tower T	2787.99
HD8-80 8 sq ft wind load 80' alum tower T	2533.99
HD9-80 9 sq ft wind load 80' alum tower T	2642.99
HD11-80 11 sq ft wind load 80' alum tower T	3002.99
HD12-80 12 sq ft wind load 80' alum tower T	3006.99
HD16-80 16 sq ft wind load 80' alum tower T	3227.99
HD4-90 4 sq ft wind load 90' alum tower T	2637.99
HD8-90 8 sq ft wind load 90' alum tower T	3112.99
HD11-90 11 sq ft wind load 90' alum tower T	3558.99
HD4-100 4 sq ft wind load 100' alum tower T	3533.99
HD8-100 8 sq ft wind load 100' alum tower T	3780.99
B-30 Base for HD tower	207.99
RFM-30 Flat roof mt for guyed tower	180.99
1-5/8SC Flange bearing	98.99
2-3/16SC Flange bearing	109.99
Top Plate Flange plate welded to top section	24.99
SEE LITERATURE FOR TOWER CONFIGURATIONS	
30 Taper 30" taper tower section T	554.99
30 Straight 30" straight tower section T	554.99
1-1/4" OD x 5 ft aluminum mast T	23.99
1-1/4" OD x 10 ft aluminum mast T	33.99
1-1/2" OD x 10 ft aluminum mast T	41.99
2" OD x 8 ft aluminum mast	49.99
2" OD x 16 ft aluminum mast T	95.99

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VALOR (See PRO AM)

VANCO (VCO)

370052 3½ digit multimeter	$ 19.99
HF-24RS Scanner headphones w/dual volume	19.99
SWR-1 SWR/field strength meter	19.99
SWR-3 Mini SWR meter	14.99

VAN GORDEN (VAN)

	AES Price
Hi-Q 1:1 balun	$ 14.99
Hi-Q 4:1 balun	14.99
Antenna center insulator	6.99
Antenna end insulator pair	4.99
Dog bone type antenna insulator each	.99
NR-100 Nylon antenna guy rope 100 ft.	4.99
NR-1000 Nylon ant guy rope 1000 ft.	44.99
D-80 80m 130' wire dipole antenna	32.99
SD-80 Short 90' 80m dipole	36.99
D-40 40m 66' wire dipole antenna	29.99
SD-40 Short 45' 40m dipole	34.99
D-20 20m 33' wire dipole antenna	28.99
D-15 15m 22' wire dipole antenna	27.99
D-10 10m 16' wire dipole antenna	26.99
All Bander Dipole 160-10m (use tuner) 135' ant	29.99
Shorty All Bander 160-10m (use tuner) 70' ant	44.99
G5RV Flat-top 3.5-30 102' ant/xmfr/100' cable	50.99
G5RV-E Flat-top 3.5-30 102' ant/31' twinlead	28.99
G5RV JR Flat-top 7-30 52' ant/17' twinlead	24.99
G5RV-M Flat-top 1.8-30 204' ant/65' twinlead	50.99
N connector Type N connector for 9913/8214	4.99
#14 Stranded hard drawn ant wire **100** ft.	11.99
#14 Stranded hard drawn ant wire **150** ft.	16.99
300 ohm 1kw transmitting twinlead **100** ft.	19.99
450 ohm 18ga solid ladderline **100** ft.	14.99
450 ohm 18ga solid ladderline **1000** ft.	109.99
450 ohm 14ga stranded ladderline **100** ft.	29.99
450 ohm 14ga stranded ladderline **1000** ft.	229.99
(WA1) WA1FFL **Ladder-Loc** 450 ohm ctr ins	12.99
RG-213 Non-contaminating per ft.	.49
RG-213/500 Non-contaminating .500 ft. Roll	179.99
8X-1.5ST 1.5' RG-8X coax/silver teflon PL259s	7.99
8X-3ST 3' RG-8X coax/silver teflon PL259s	8.99
8X-6ST 6' RG-8X coax/silver teflon PL259s	10.99
8X-12ST 12' RG-8X coax/silver teflon PL259s	11.99
8X-25ST 25' RG-8X coax/silver teflon PL259s	15.99
8X-50ST 50' RG-8X coax/silver teflon PL259s	24.99
8X-75ST 75' RG-8X coax/silver teflon PL259s	31.99
8X-100ST 100' RG-8X coax/silver teflon PL259s	37.99
213-25ST 25' RG-213 coax/silver teflon PL259s	25.99
213-50ST 50' RG-213 coax/silver teflon PL259s	38.99
213-75ST 75' RG-213 coax/silver teflon PL259s	54.99
213-100ST 100' RG-213 coax/silver teflon PL259s	72.99

VECTRONICS (VEC)

VC-300M 300w mobile antenna tuner	$ 99.99
VC-300DLP 300w antenna tuner	149.99
VC-300D 300w digital antenna tuner	179.99
HFT-1500 1.5kw antenna tuner	399.99
AT-100 .3-30 MHz active antenna/tuner	79.99
HPF-1 High pass filter, 75 or 300 ohms	24.99
HPF-2 Deluxe high pass filter, 75 or 300 ohms	29.99
LP-30 1.5kw low pass filter	69.99
LP-2500 2.5kw low pass filter	129.99
CK-200 Deluxe keyer Δ	69.99
DL-300M 300w 150MHz dummy load	44.99
DL-650M 1.5kw 650MHz dummy load	74.99
DL-2500 2.5kw 150MHz dummy load	179.99
PM-30HF 300/3kw HF wattmeter	79.99
PM-30UV 30/300w VHF/UHF wattmeter	89.99
AC-12 12vdc 300ma adapter D	6.99
121K Crystal radio set kit	19.99
131K Aircraft receiver kit	29.99
201K CW keyer kit	24.99
412K Nicad/NiMH battery conditioner kit	49.99
422K FM broadcast SCA decoder kit	27.99
830K Super SSB audio filter kit	19.99
841K Tunable SSB/CW audio filter kit	34.99
1140K 40m receiver kit	29.99

Vectronics - continued

	AES Price
1240K 40m QRP CW transmitter kit	29.99
1290K AM radio transmitter kit	29.99
1294K TV transmitter kit	27.99
1402K 2m preamp kit	17.99

VELLEMAN (VEL)

DVM-810 3½ digit digital multimeter	$ 9.99
DVM-850BL Deluxe 3½ digit DMM w/holder	19.99
VT-COAX Coax stripper; RG-58/59/62/6	14.99
VT-TS 25-piece hobbyist tool set	9.99

VIBROPLEX (VIB)

090 Original Gold Bug	$309.99
100 Original Presentation Super deluxe bug	269.99
105 Original Deluxe Bug	199.99
110 Original Standard Bug	169.99
113 VibroKeyer Gold Paddle	279.99
115 VibroKeyer Deluxe Paddle	184.99
120 VibroKeyer Standard Paddle	149.99
123 Iambic Gold Paddle	279.99
125 Iambic Presentation Paddle	249.99
130 Iambic Deluxe Paddle	189.99
135 Iambic Standard Paddle	149.99
145 Triangular Brass Racer Iambic paddle	139.99
150 Square Brass Racer Iambic paddle	139.99
153 Gold straight key	279.99
155 Standard straight key	149.99
160 Deluxe straight key	189.99
162 Gold Hand key/Iambic Paddle double	369.99
163 Gold Hand key/VibroKeyer Paddle double	369.99
165 Deluxe Hand key/Iambic Paddle double	329.99
170 Dlx Hand key/VibroKeyer Paddle double	329.99
175 Standard Hand key/Iambic Paddle double	279.99
180 Std Hand key/VibroKeyer Paddle double	279.99
185 Square Racer Deluxe Iambic paddle	139.99
190 Square Racer Standard Iambic paddle	119.99
195 Blue Racer 2000 Std Millennium Bug Δ	149.99
198 Blue Racer 2000 Dlx Millennium Bug	229.99
200 Code Warrior Junior Paddle	99.99

WA1FFL (WA1)

Ladder-Loc 450 ohm ladderline center attach	$ 12.99

W2AU (Unadilla) (W2A)

W2AU 1:1 160-10m balun, lightning arrestor	$ 24.99
W2AU 4:1 160-10m balun, lightning arrestor	24.99
W2AU Beam Balun, 1:1	24.99
W2DU-HF 1:1 1.8-30 MHz choke balun	26.99
W2DU-VHF 1:1 30-250 MHz choke balun	26.99
W2DU Beam Balun 40-10m 1:1 choke balun	26.99
HA AN-sulator center insulator	9.99
HE END-sulator end insulators pair	4.99
KW-80CW Reyco 80m CW ant traps pair	48.99
KW-80F Reyco 75m phone ant traps pair	48.99
KW-40 Reyco 40m antenna traps pair	42.99
KW-30 Reyco 30m antenna traps pair	42.99
KW-20 Reyco 20m antenna traps pair	41.99
KW-17 Reyco 17m antenna traps pair	41.99
KW-15 Reyco 15m antenna traps pair	41.99
KW-12 Reyco 12m antenna traps pair	41.99
KW-10 Reyco 10m antenna traps pair	41.99
W2AU/W2VS 5-band ant kit (use tuner)	85.99

W5YI (W5Y)

ECS-02 Extra upgrade software/manual/code	$ 39.99
GUS General upgrade software/manual/code	34.99
GW05 Gordon West 6 ea 0-5 wpm code tapes	29.99
GW13 Gordon West 6 ea 5-16 wpm code tapes	29.99
GW20 Gordon West 6 ea 10-28 wpm code tapes	29.99
GWEM-02 Gordon West Extra study manual	19.99
GWEW-02 Gordon West 4 ea Extra theory tapes	29.99
GWGM Gordon West General study manual	12.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

W5YI - continued

	AES Price
GWGW Gordon West 4 ea General theory tapes	19.99
GWTM Gordon West Technician study manual D	11.99
GWTM-03 Gordon West Tech study manual ...	15.99
GWTW Gordon West 4 ea Tech theory tapes D	19.99
GWTW-03 Gordon West 4 ea Tech theory tapes	29.99
HOS-02 Ham operator software/code (all classes) D	39.99
HOS-03 Ham operator software/code (all classes)	39.99
NCS Technician software w/manual .....D	34.99
NCS-03 Technician software w/manual	39.99
NCVP Technician video/manual/part 97 book	29.99
TPG Tech/General software/manuals/code ...D	49.99
TPG-03 Tech/General software/manuals/code	54.99
WMC 0-48 wpm code software	14.99

WAHL (WAH)

7740 Quick charge cordless soldering iron kit	$ 47.99
7971 30 minute butane soldering iron	19.99
7974 120 minute butane soldering iron	27.99

WELLER (WEL)

7200PK 75w soldering gun kit	$ 28.99
EC-1002-1 40w temp controlled solder stn D	199.99
SP-23LK 25w soldering iron kit	17.99
WP-25 25w professional soldering iron	34.99
W-60P 60w temp controlled soldering iron ...	64.99
WESD51 50w adjustable soldering station ...	149.99
WSTA3 Pyropen portable LP soldering iron	99.99
WST2 Pyropen Jr. portable butane iron	89.99
WTCPT 60w temp controlled soldering stn	119.99

West Mtn Radio (WES)

RB/PR/C Rigblaster Pro; 8-pin/RJ-45	$299.99
RB/PL/C Rigblaster Plus; 8-pin/RJ-45	139.99
RB/M8/C Rigblaster; 8-pin/RJ-45	109.99
RB/NO/8C Rigblaster nomic for 8-pin radios	59.99
RB/NO/FT100 Rigblaster nomic; Yae modular 6	59.99
RB/NO/RJC Rigblaster nomic for RJ-45 radios	59.99
RR/4005/C Rigrunner 40A 5outlet/cbl/connectors	59.99
RR/4012/C Rigrunner 40A 12outlet/cbl/connectors	109.99
C30/PK/12 12pr PowerPole 30A connectors	10.99
CR/Tool Gardner Bender forged crimp tool	9.99

WILSON (WIL)

FGT-4/BLK 4' black figerglass CB whip	$ 27.99
FGT-4/WHT 4' white figerglass CB whip	27.99
Little Wil Magnetic mt CB antenna	31.99
Trucker 2000 Black mobile ¾-24 CB whip ...	57.99
W-1000 Magnetic Black mobile CB antenna	76.99
W-1000 Roof Top Black mobile CB antenna .	57.99
W-1000 Trunk Lip Black mobile CB antenna	65.99

WINEGARD (WIN)

CX-0625 25' RG-6 TV coax w/F connectors ...	$ 10.99
CX-0650 50' RG-6 TV coax w/F connectors ...	15.99
CX-0675 75' RG-6 TV coax w/F connectors ...	19.99
CX-6100 100' RG-6 TV coax w/F connectors .	24.99
PR-7010 22 el 66.5" boom Prostar TV ant	39.99
PR-7032 33 el 103.25" boom Prostar TV ant	64.99
PR-7042 43 el 149.75" boom Prostar TV ant	99.99
TV-2900 Outdoor TV matching transformer	2.99

YAESU (YAE)

FT-1000MP Mk V 200w HF Xcvr/EDSP/tuner/ps .	CALL
Mk V Field 100w HF Xcvr/EDSP/tuner/ps	CALL
DVS-2 Digital voice recording module	219.99
FH-1 Remote control keypad	88.99
FTV-1000 200w 6m transverter; Mk V	CALL
FP-29 30vdc ps; FTV-1000 w/orig MP/Field	499.99
FRB-5 Relay board; FTV-1000 w/orig MP	50.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic .	379.99
MH-31B8 Extra hand microphone	39.99
SP-8 External speaker w/filters	159.99
LL-7 Phone patch unit for SP-8	139.99

Yaesu - continued

	AES Price
TCXO-6 Deluxe TCXO unit, 0.5 ppm	174.99
YF-110CN 250 Hz 3rd IF main Rcvr CW filt	144.99
YF-110SN 2 KHz 3rd IF main Rcvr SSB filt	144.99
YF-114CN 250 Hz 2nd IF main Rcvr CW filt	144.99
YF-114SN 2 KHz 2nd IF main Rcvr SSB filt	144.99
YF-115C 500 Hz CW Collins mech filter	159.99
YH-77STA Open-air type stereo headphones	51.99
FT-1000D Dlx Xcvr/BPF/TCXO/XF-ABCDE/ps ..	CALL
DVS-2 Digital voice recording module	219.99
FIF-232C Interface for RS-232	95.99
MD-100A8X* Desk mic w/tone control	129.99
*Cable needed for FT-1000D; contact service for info	
MD-200A8X Deluxe high fidelity desk mic .	379.99
SP-5 External spkr w/audio filter	144.99
LL-5 Phone patch unit for SP-5	129.99
YF-110CN/XF-F 250 Hz CW xtal filter (455 KHz)	144.99
YH-77STA Open-air type stereo headphones	51.99
FT-920 9-band Xcvr/AF-DSP/tuner/6m/kyr ..	CALL
FM-1 FM unit FREE with FT-920! Limited Time!	
FP-1023 23A switching ps w/fan, 25A surge ...	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
FM-1 FM unit	62.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic .	379.99
SP-8 External speaker w/filters	159.99
LL-7 Phone patch unit for SP-8	139.99
T-9018320 Extra DC cable	26.99
TCXO-7 TCXO unit	99.99
YF-116A 6 KHz AM filter	119.99
YF-116C 500 Hz CW filter	119.99
YH-77STA Open-air type stereo headphones	51.99
FT-847 HF/6m/2m/430 Earth Station Xcvr/mic ..	CALL
FP-1023 23A switching ps w/fan, 25A surge ...	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
ATAS-100 HF/6/2/430 motorized mob ant D	269.99
ATAS-120 HF/6/2/430 motorized mob ant ..	329.99
ATBK-100 Antenna base kit; use w/base mt	89.99
CT-39 Packet cable	9.99
CT-61 Interface cable; FT-847 to amp	15.99
FC-20 Automatic antenna tuner	269.99
FVS-1A Voice synthesizer	43.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic .	379.99
MH-36D8 TTP mobile microphone	60.99
MMB-66 Mobile mounting bracket	39.99
SP-8 External speaker w/filters	159.99
T-9018320 Extra DC cable	26.99
YF-115C 500 Hz CW Collins mech filter	159.99
YF-115S-02 2.5 KHz SSB Collins mech filt	159.99
YH-77STA Open-air type stereo headphones	51.99
FT-840 HF Xcvr/SW Rcvr/mic	CALL
FP-1023 23A switching ps w/fan, 25A surge ...	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
FC-10 External coax fed auto tuner	379.99
FC-800 External long wire auto tuner	439.99
FIF-232C Interface for RS-232	95.99
MD-100A8X* Desk mic w/tone control	129.99
*Cable needed for FT-840; contact service for info	
MD-200A8X Deluxe high fidelity desk mic .	379.99
MLS-100 Mobile speaker	45.99
MMB-20 Mobile mount	34.99
SP-6 External speaker w/filter	144.99
T-9018320 Extra DC cable	26.99
TCXO-4 TCXO unit	99.99
YF-112A 6 KHz AM filter	119.99
YF-112C 500 Hz CW filter	119.99
YH-77STA Open-air type stereo headphones	51.99
FT-897 HF/6m/2m/430 portable/base Xcvr .	CALL
FP-30 Internal power supply	209.99
ATAS-100 HF/6/2/430 motorized mob ant D	269.99
ATAS-120 HF/6/2/430 motorized mob ant ..	329.99

Yaesu - continued

	AES Price
ATBK-100 Antenna base kit; use w/base mt	89.99
CT-39 Packet cable	9.99
CT-62 CAT interface cable	29.99
FC-30 Antenna tuner; bolts to FT-897	239.99
FNB-78 4.5 AH NiMH batt (will accept 2) ..	119.99
CD-24 4-hr charge adapter for FNB-78 ..	119.99
PA-26B 110vac charger for CD-24	85.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic .	379.99
MH-36E8J TTP mic	60.99
MLS-100 Mobile speaker	45.99
MMB-80 Mobile mounting bracket	35.99
SP-6 External speaker w/filter	144.99
T-9018320 Extra DC cable	26.99
TCXO-9 TCXO unit, 0.5 ppm.....	99.99
YF-122C 500 Hz Collins CW filter	159.99
YF-122CN 300 Hz Collins CW filter	159.99
YF-122S 2.3 KHz Collins SSB filter	159.99
YH-77STA Open-air type stereo headphones	51.99
FT-857 Mini HF/6m/2m/430 Xcvr	CALL
FP-1023 23A switching ps w/fan, 25A surge ...	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
ATAS-100 HF/6/2/430 motorized mob ant D	269.99
ATAS-120 HF/6/2/430 motorized mob ant ..	329.99
ATBK-100 Antenna base kit; use w/base mt	89.99
CT-39 Packet cable	9.99
CT-58 Band data cable; Yaesu amplifier ...	37.99
CT-62 CAT interface cable	29.99
DSP-2 DSP unit	85.99
FC-30 Antenna tuner; bolts to FT-897	239.99
MD-100A8X Desk mic w/tone control	129.99
MD-200A8X Deluxe high fidelity desk mic .	379.99
MH-36E8J TTP mic	60.99
MH-59A8J Remote control TTP mic	82.99
MLS-100 Mobile speaker	45.99
SP-6 External speaker w/filter	144.99
TCXO-9 TCXO unit, 0.5 ppm.....	99.99
YF-122C 500 Hz Collins CW filter	159.99
YF-122CN 300 Hz Collins CW filter	159.99
YF-122S 2.3 KHz Collins SSB filter	159.99
YH-77STA Open-air type stereo headphones	51.99
YSK-857 Separation kit	69.99
FT-817 5w HF/6m/2m/430 SSB/AM/FM Xcvr	CALL
(W4R) **OTT-1** One-touch tune for FT-817	59.99
CSC-83 Soft case w/side pocket for FT-817	25.99
CT-39 Packet cable	9.99
CT-62 CAT interface cable	29.99
EDC-6 Extra DC cord; plug & wire only	7.99
FNB-72 1000ma 9.6v nicad battery	60.99
MH-36E8J TTP mic	60.99
MLS-100 Mobile speaker	45.99
NC-72B Nicad wall charger	18.99
TCXO-9 TCXO unit, 0.5 ppm.....	99.99
YF-122C 500 Hz Collins CW filter	159.99
YF-122CN 300 Hz Collins CW filter	159.99
YF-122S 2.3 KHz Collins SSB filter	159.99
FT-100D MniHF/6/2/440/DSP/TT/CWfilt/TCXO/dec ..	CALL
FP-1023 23A switching ps w/fan, 25A surge ...	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
ATAS-100 HF/6/2/430 motorized mob ant D	269.99
ATAS-120 HF/6/2/430 motorized mob ant ..	329.99
ATBK-100 Antenna base kit; use w/base mt	89.99
CT-39 Packet cable	9.99
CT-58 Band data cable; Yaesu amplifier ...	37.99
CT-62 CAT interface cable	29.99
CT-69 6-pin modular - 8-pin mic jack adapter	29.99
FC-20 Automatic antenna tuner	269.99
MLS-100 Mobile speaker	45.99
MMB-62 Remote front panel mounting bkt	39.99
MMB-67 Quick release bracket	29.99
SP-6 External speaker w/filter	144.99

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	AES Price
LL-5 Phone patch unit for SP-6	129.99
T-9021925 Extra DC cord	42.99
XF-117A 6 KHz AM filter	99.99
XF-117CN 300 Hz CW filter D	119.99
Suggest dealer installation of filter in FT-100D	
Only one optional filter may be installed	
YH-77STA Open-air type stereo headphones	51.99
YSK-100 Separation kit	79.99
FC-1000 Wire auto tuner; 747/757II/767	119.99
FP-1023 23A switching ps w/fan, 25A surge	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
FTS-27 CTCSS decoder unit; orig FT-100 Δ	47.99
TCXO-2 TCXO unit; FT-990 D	49.99
XF-117C 500 Hz CW filter; orig FT-100 Δ	69.99
YA-30 1.8-30 MHz broadband dipole ant	229.99
YH-77ST Open-air type stereo headphones	51.99
YS-60 1.8-60 MHz 2kw PEP wattmeter	129.99
YS-500 140-520 MHz 200w PEP wattmeter	109.99
Quadra System VL/VP1000 HF+6m amp/ps/tuner	CALL
FRG-100B .1-30 MHz shortwave receiver	CALL
FIF-232C Interface for RS-232	95.99
FM Unit-100 FM unit	47.99
TCXO-4 TCXO unit	99.99
YF-110CN/XF-F 250 Hz CW xtal filter	144.99
YF-115C 500 Hz CW Collins mech filter	159.99
VR-120D .1MHz-1.2995GHz AM/FM hand/cell blkd	CALL
51R Clone/CT-35 Clone cable; VR-120/D D	9.99
CA-34 Charger sleeve; NC-82/VR-120D	3.99
CSC-76 Soft case for VR-120/D	19.99
EDC-15 DC adapter	38.99
FNB-79 Nicad battery for VR-120D	18.99
NC-82 Charger stand	8.99
PA-30B AC adapter	7.99
VR-500 .1M-1.3G AM/FM/SSB hand/cell blkd	CALL
51R Clone/CT-35 Clone cable; VR-500 D	9.99
ADMS-3 Windows programming software	39.99
CSC-72 Soft case for VR-500	19.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC adapter; plug & wire only	7.99
FNB-59 Nicad battery for VR-500	29.99
NC-60B Wall charger	14.99
VR-5000 .1M-2.6G base rcvr AM/FM/SSB/cell blkd	CALL
DSP-1 DSP unit	119.99
DVS-4 Digital voice recorder	47.99
FVS-1A Voice synthesizer	43.99
E-736 DC cable for FT-736R Δ	16.99
FEX-736-220 220 MHz module; FT-736R Δ	309.99
AD-3 100w 2m/440 duplexer	52.99
FRC-4 DTMF pager unit; FT-5200/6200 D	.99
FTS-7A Encoder/decoder; newer 290/690/790 Δ	39.99
MH-27B8 8-pin TTP mic; FT-5200/6200 Δ	65.99
FT-8900R 50w 10m/6m/2m/35w 440 FM Xcvr	CALL
CT-39 Packet cable	9.99
MLS-100 Mobile speaker	45.99
MMB-62 Remote front panel mounting bkt	39.99
T-9021810 Extra DC cable	12.99
YSK-8900 Remote separation kit	69.99
ADMS-2G Windows prog soft; FT-7100M Δ	39.99
MMB-60 Quick release mob bkt; 3000/7100M Δ	29.99
YSK-7100 Rem separation kit; FT-7100M Δ	69.99
FT-90R 50/35w 2m/440 micro FM Xcvr	CALL
ADMS-2E Windows programming software	39.99
MLS-100 Mobile speaker	45.99
RA-0131900 Extra mobile bracket	4.99
T-9021810 Extra DC cable	12.99
YSK-90 Remote separation kit	64.99
ADMS-2D Prog soft; 3000/8000/8100/8500 Δ	39.99
DVS-4 Digital voice recorder; FT-3000M Δ	39.99
FRC-6 DTMF pager; 2400M/2500M/7400H D	.99
FTS-17A CTCSS decode unit; FT-3000M Δ	39.99

Yaesu - continued

	AES Price
FTS-22 CTCSS decode unit; FT-8100R Δ	68.99
MEK-2 Mic extend kit; 8-pin mic; FT-8500 Δ	29.99
MH-27A8J TTP mic/modular plug; early 2500M Δ	49.99
MH-36C8J Extra TTP mic; late FT-2500M Δ	59.99
MMB-48 Extra mobile bracket; FT-2600M Δ	16.99
YSK-8100 Rem separation kit; FT-8100R Δ	69.99
FT-2800M 65w 2m FM Xcvr w/TTP mic	CALL
MLS-100 Mobile speaker	45.99
FT-1500M 50w 2m FM Xcvr w/TTP mic	CALL
ADMS-2F Windows programming software	39.99
CT-39 Packet cable	9.99
MLS-100 Mobile speaker	45.99
RA-0242900 Extra mobile bracket	9.99
T-9021810 Extra DC cable	12.99
FP-1023 23A switching ps w/fan, 25A surge	159.99
FP-1030A 25A ps, 30A surge w/meters	249.99
HRI-100 WIRES II interface box	169.99
LF-1 Mobile 13A DC noise filter	26.99
MLS-100 Mobile speaker	45.99
SP-4 Mobile speaker	31.99
VX VPL-1D/Vertex Rptr prog soft & cable Δ	89.99

Accessories for FT-26/415/416/530

CA-8 2 chg sleeves; NC-50/FT-416/530 D	$ .69
FBA-12 AA cell holder Δ	19.99

Accs for FT-23/33/73/411/811/470/911

CA-7 2 charging sleeves; NC-50/411E/470 D	$ 9.99
CLIP-1 Belt clip Δ	7.99
CSC-24S Soft case; FT-23/33/73 w/FNB-12S D	.29
CSC-28 Soft case; FT-23/33/73 w/FNB-12S Δ	2.99
CSC-35 Soft case; FT-411/811/911/FNB-17 D	.49
FBA-17 AA battery holder D	19.99
FNB-12S 600ma 12v (5w) battery Δ	55.99
FNB-17 600ma 7.2v battery Δ	34.99
FTT-4 DTMF (TTP) unit for FT-23/33/73 D	1.99
MH-32A2B Compact lapel speaker/mic Δ	24.99
MH-34C2B Compact lapel speaker/mic Δ	19.99
NC-28B Extra wall charger for FNB-17 D	9.99
NC-34B Wall charger for FNB-14 Δ	4.99
NC-65B/NC-18B Wall charger for FNB-12S Δ	9.99
PA-6 Mobile DC adapter/cgr; FNB-14/17 Δ	19.99
YH-2 Lightweight VOX headset w/mic Δ	29.99
FT-50RD/41B 5w 2m/440 HT/FNB41/FTT-12	CALL
ADMS-1E Windows programming software	39.99
CA-15 Charging stand; FT-10/40/50	27.99
NC-60B Wall charger; FNB-40/41/CA-15	14.99
CLIP-10 Spring loaded belt clip	7.99
CN-2 BNC to SMA adapter: FT-10/40 Δ	8.99
CN-3 BNC to SMA adapter: FT-50R	8.99
CSC-68 Soft case; FNB-41/FBA-15	16.99
CSC-69 Soft case; FNB-40 Δ	4.99
CSC-V10 Cordura soft case; FT-10/40/50	27.99
CT-27A Cloning cable	10.99
CT-30 Microphone Y adapter D	10.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-15 4-AA battery holder	19.99
FBA-21 6-AA battery holder	38.99
FEP-10 Earphone	9.99
FNB-41 600ma 9.6v (5w) battery	58.99
FNB-42 1100ma 9.6v (5w) battery	62.99
FNB-V47 1100ma 7.2v battery w/belt clip	55.99
PA-17 Battery cable extender	57.99
LCC-10C Leather case/belt clip; 50/FNB41/V47	31.99
LCC-10S Leather case/swivel; 50/FNB41/V47	31.99
MH-30C2B Speaker/mic; use CT-30 also	45.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-50 1-hour dual slot charger	92.99
CA-14 2 charging sleeves; NC-50	26.99
RH-1 Black rubber case protector D	7.99

Yaesu - continued

	AES Price
RH-1R Orange rubber case protector D	7.99
VC-25 VOX headset	62.99

Accessories for FT-11R/41R/51R

CA-10 2 charge sleeves; NC-50/11/41/51 D	$ 14.99
CSC-61 Case; 11R/41R/FNB33/38/FBA14 D	4.99
CSC-62 Soft case; FT-11R/41R/FNB-31 D	.99
CSC-66 Soft case; FT51R/FNB33/38/FBA14 D	9.99
EDC-12 DC adapter; FT-11R/41R/51R Δ	29.99
FBA-14 AA battery holder Δ	19.99
FNB-31 600ma 4.8v battery D	19.99
FNB-33 1200ma 4.8v battery Δ	39.99
FNB-38 600ma 9.6v battery D	69.99
MH-37B2B Earpiece/microphone Δ	14.99
NC-55B Wall charger for FNB-31 D	4.99
VX-150/Vertex 5w 2m HT/batt/cgr/16key TTP	CALL
ADMS-1F Windows programming software	39.99
CN-3 BNC to SMA adapter	8.99
CT-27A Cloning cable	10.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-25 6 AA cell battery case	48.99
FNB-V57 1100ma 7.2v battery	70.99
FNB-64 Extra 700ma 7.2v battery	43.99
LCC-150/TT Leather case	23.99
LCC-150S/TT Leather case w/swivel	31.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
VAC-400B 1-hour desk top rapid charger	56.99
VC-25 VOX headset	62.99
VX-1R 500mw 2m/440 submini HT/lith ion	CALL
ADMS-1E Windows programming software	39.99
CN-3 BNC to SMA adapter	8.99
CSC-71 Soft case for VX-1R	19.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-15 DC adapter	38.99
FBA-20 Battery holder	22.99
FEP-10 Earphone	9.99
FNB-52LI Extra 700ma 3.6v lith ion batt	36.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-66B Extra 2 hour wall charger	18.99
VC-25 VOX headset	62.99
VX-5R Black 5w 6m/2m/4.5w 440 HT/lith ion	CALL
VX-5RS Silver 5w 6m/2m/4.5w 440 HT/lith ion	CALL
ADMS-1E Windows programming software	39.99
CD-15A Charger stand (use with NC-72B)	20.99
CN-3 BNC to SMA adapter	8.99
CSC-73 Soft case	19.99
CT-27A Cloning cable	10.99
CT-44 2-pin spkr/mic adapter	12.99
CT-53 Packet cable	9.99
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-23 2 AA cell battery case	25.99
FNB-58LI Extra 1100ma 7.2v lith ion batt	69.99
MH-34B4B Speaker/mic	30.99
MH-37A4B Earpiece/microphone	30.99
NC-72B Extra wall charger	18.99
SU-1 Altitude/barometric pressure sensor	35.99
VC-25 VOX headset	62.99
VX-7R Silver 5w 6m/2m/440/300mw 220 FM HT	CALL
VX-7RB Black 5w 6m/2m/440/300mw 220 FM HT	CALL
CD-15A Charger stand (use with NC-72B)	20.99
CMP-460A Waterproof speaker/mic	49.99
CN-3 BNC to SMA adapter	8.99
CSC-88 Soft case	15.99
CT-91 Microphone adapter	10.99

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
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Yaesu - continued

	AES Price
EDC-5B DC adapter w/noise filter	26.99
EDC-6 DC cord; plug & wire only	7.99
FBA-23 2 AA cell battery case	25.99
FNB-80LI Extra 1300ma 7.4v lith ion batt	83.99
MH-57A4B Speaker/mic	30.99
SU-1 Altitude/barometric pressure sensor	35.99
VC-27 Earpiece/microphone	30.99

ANTENNA ROTORS

G-450A 10 sq ft antenna rotor/5-wire	259.99
G-550 12 sq ft elevation rotor/6-wire	299.99
G-800SA Med/hvy duty 450 degree 17sq ft/5-wire	339.99
G-800DXA Med/hvy duty 17sq ft/presets/5-wire	429.99
G-1000DXA HD 450 degree 23sq ft/presets/6-wire	519.99
G-2800DXA HD 450 degree 34sq ft/presets/6-wire	1139.99
Note: G-2800DXA comes w/40m (131') of rotor cable	
G-5500 11 sq ft azimuth/elevation rotor//2x6-wire	629.99
GA-3000 Tower absorber joint; G-1000/2800 D	119.99
GC-038 Mast clamp; G-450/800/1000/5500	31.99
GC-048 Mast clamp; G-2800	47.99
GL-33 Mast adjustment plate	14.99
GS-050 50mm thrust bearing; mast 1¼-2"	31.99
GS-065 65mm thrust bearing; mast 1½-2½"	47.99
GS-232A Computer interface; DXA rotors	539.99
C-1000 Interface cable; GS-232A - SDX/G5500	29.99
GS-680U Universal self-adjusting mast bearing	99.99
Sep Kit Separation kit for G5500	23.99

See BELDEN for rotor cable

CONSUMER ELECTRONICS

VXA-150 Pro V 5w air handheld	$289.99
VXA-210 Pilot 5w air handheld w/VOR	344.99
VXA-700 Spirit 5w air handheld/2m FM ham	419.99
FNB-53 Nicad battery pack; Yaesu FRS .....Δ	4.99

CLOSE-OUTS

ADI ARC-12 Smart charger	$ 49.99
ALI DJ-X2T 522KHz-1GHz cc size Rcvr/lith ion/cell blkd	199.99
ALI DM-340MVT 30A ps w/meters/35A surge	159.99
ALI EDC-45 Quick charger; DJ180/280TH	69.99
ALP Delta-4C 4-pos coax switch/protector console	139.99
ALP Delta-4CN 4-pos N coax switch/protector console	149.99
AOR AR-8600B .53M-2.04G rcvr AM/FM/SB/cell blkd	799.99
ASP AP-143 2m 23" on glass cell look-alike ant	69.99
ASR 12/115 200w 12vdc-115vac inverter	59.99
AST Silver Eagle Final Edition amp desk mic	199.99
B&W AC-5-30 5-30 MHz 65' folded dipole	199.99
B&W ACS-5-30 5-30 Mhz stainless 65' folded dip	319.99
B&W AS-20 20/15/10m 20' trap dipole ant	119.99
B&W AS-40 40/20/15/10m 40' trap dipole	154.99
B&W AS-80 80/40/20m 78' trap dipole ant	119.99
B&W AS-160 160/80/40/20m 137' trap dipole	154.99
B&W AT-55 40/20/15/10m 55' trap dipole	99.99
B&W AT-110 80/40/20/15/10m 110' trap dipole	99.99
B&W AXS-160 160/30m 96' trap dipole ant	89.99
B&W AXS-80 80/40/15m 65' trap dipole ant	119.99
B&W BWD-1.8-30 1.8-30 MHz 90' folded dip	199.99
B&W BWDS-1.8-30 1.8-30 stainless 90' folded dip	319.99
BEL 8018 #8 alum gnd wire .....**500** ft. Roll	69.99
BEL 9201 RG-58 (solid center) ....**500** ft. Roll	59.99
BEL 9251 RG-8A (non-contam) ....**100** ft. cut	59.99
BEL 9251 RG-8A (non-contam) ...**500** ft. Roll	279.99
BEN BY-3 Iambic keyer paddle, gold plated	299.99
BUS 78-0040 90mm refractor telescope	439.99
BUS 78-0200 4.5" reflector telescope	269.99
BUS 78-8000 8" Dobsonian reflector telescope	399.99
BUS 78-9675 4.5" reflector telescope	229.99
CEL 11015 Celestar 8 telescope	999.99
CEL 11051 G-5 w/motor drive telescope	699.99
CEL 21072 Firstscope 80 EQWA refractor telescp	199.99
CEL 31058 G-8N 8" Newtonian reflector telescp	449.99
CEL 50025 30mm mini spotting scope/tripod	59.99
CEL 93308 1.25" 6mm ocular Plossl lens	49.99

Close-Outs - continued

	AES Price
CEL 93310 1.25" 10mm ocular Plossl lens	49.99
CEL 93312 1.25" 17mm ocular Plossl lens	49.99
CEL 93507 1.25" 2x deluxe Barlow lens	59.99
CEL 94118-S1 1.25" eyepiece filter set	69.99
CMT CHF-412 40/15/2m 28" BNC duck; FT817	49.99
CMT CHF-816 80/10/6m 28" BNC duck; FT817	59.99
CMT CQ-5M Dlx black QD trunk lip mt/coax	66.99
CMT CQ-5N Dlx black QD tnk lip mt/coax/N	59.99
CMT CYA-2412 2.4G 12el 15.5db 2' 6" bm N beam	129.99
CMT DS-15 6m/2m/440/900/1.2 discone ant	79.99
CMT GP-24S 2.4GHz 9.9db 3' 7" N base/rptr	99.99
CMT Z-750 2m/440 2.1/5.5db 39" theft resistant	59.99
COB 18WX ST Sound Tracker AM Mob CB w/WX	49.99
COB 25NW ST Night Watch Sound Tracker AM Mob CB	79.99
CUT HP-7AF 7AH gel-cell w/2.5 hr fast cgr	59.99
DIA F-718L 420-430 11.5db ATV N base ant	199.99
GAR GPS-12CX Color GPS receiver	189.99
GAR NavTalk Analog cell phone/GPS combo	249.99
GAR StreetPilot 12ch dash mt mapping GPS	399.99
HEI HM-I Studio condensor mic; Icom	89.99
HEI PRO-5-IC Bm mic/sgl headset/adapter; Ico	89.99
IAC 40m-S 40m half sloper 33' antenna	69.99
ICO AD-25 Battery charger adapter; 2GXAT	49.99
ICO BC-119-31 Nicad desk cgr; IC-T81A	99.99
ICO BC-119-N21 Nicad/NiMH desk cgr; T81A	99.99
ICO BP-5 425ma 10.8v high power battery	79.99
ICO BP-8 800ma 8.4v long life battery	99.99
ICO BP-83 7.2v 600ma battery	79.99
ICO BP-84 7.2v 1000ma battery	99.99
ICO BP-198 4.8v 700ma NiMH batt; T81A	59.99
ICO BP-199 6v 700ma NiMH battery; T81A	69.99
ICO BP-200L 9.6v 760ma NiMH batt; T81A	89.99
ICO EX-1759 Infrared receiver	99.99
ICO FL-96 2.8 KHz 455 KHz IF SSB filter	149.99
ICO FL-102 6 KHz 9 MHz IF AM filter; 775DSP	79.99
ICO HM-90A Wireless microphone	119.99
ICO MB-19 Rack mounting handles; 775DSP	59.99
ICO R-2-06 .5M-1.3G AM/FM hand/batts/cgr/cell blkd	99.99
ICO RS-746 Win remote control software	69.99
ICO UT-30 Tone encoder; IC-707	49.99
ICO UT-66 Voice synthesizer; IC-775DSP	69.99
ICO UT-84 Tone squelch unit; 2700H/821H	89.99
ICO UT-86 Tone squelch; IC-706 Mk II only	69.99
ICO UT-89 Tone scan/decode unit; IC-2350H	89.99
KEN DRU-2 Digital recording unit; TS-950SDX	139.99
KEN KCT-24S VCH-1 to PC software/cable	49.99
KEN PG-4T VC-H1 to Kenwood FM mobile cable	49.99
KEN SP-950 Ext spkr/audio filters; TS-950SDX	149.99
KEN TSU-5 Prog CTCSS decoder; TS-790A	59.99
KEN TU-7 Prog encoder; 2550/751A/TW4100A	54.99
KEN TU-8 CTCSS tone unit; TS-450S/690S	54.99
KEN YG-455C-1 500 Hz CW filt; TS-450/690	149.99
MAG GPS-310 12 ch GPS receiver	99.99
MAG GPS-315 12 ch GPS receiver	149.99
MAG GPS-320 12 ch GPS receiver	149.99
MAG MAP-330 12ch GPS Rcvr/8mb base map	199.99
MAG Meridian GPS GPS with 2MB base map	199.99
MAG Meridian XL GPS/plotter/detachable ant	89.99
MAH MH-BP-132G 1300ma 12v Ico gray nick hyd/mic	49.99
MAH MH-C777 Plus Univ cgr/analy; lith/nicd/nimh	69.99
MAL MSG-1000C 2m/440 2.15/5.5db 39" mob	49.99
MAL MSG-1100C 2m/440 3.5/6db 43" mob	59.99
MAL SHG-1500B 2m/440 blk 4.5/7.5db 59" mob	59.99
MAL SHG-1500BNMO 2m/440 blk 4.5/7.5db 59" NMO	59.99
MEA 07522 908B broadband nebula filter	69.99
MEA 20061 DS-60EC 60mm refractor telescope	169.99
MEA CVB-1001 8x22 binoculars/dig camera	79.99
MFJ 394 Boom mic/single headphone	49.99
MFJ 442X SlimLine keyer only	59.99
MFJ 722 SSB/CW notch filter	49.99
MFJ 780 DSP data filter for 1278B	69.99

Close-Outs - continued

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MFJ 781 DSP filter for any TNC or controller	99.99
MFJ 940A 10m ant tuner/SWR/wattmeter	59.99
MFJ 9117B 9017 Xcvr/tuner/ps/ant package	199.99
MFJ 9130B 9030 Xcvr/tuner/ps/ant package	299.99
MFJ 9140B 9040 Xcvr/tuner/ps/ant package	299.99
MID 74-210 FM/SAME WX/hazard alert radio/ps	49.99
MID WR-30 FM/SAME WX/hazard alert radio/ps	49.99
MIR B-215G 2m FM/SSB 2/150w amp/pre	279.99
MIR B-1016G 2m FM/SSB 10/160w amp/pre	299.99
MIR C-5022G 220 FM/SSB 50/200w amp/pre	399.99
MIR KP-2/10M 10m mast mount preamp	139.99
MSQ 2M-XP20 144-146 13.3db 10h/10v cross polar	199.99
MSQ 2M-XP28 144-146 15.1db 14h/14v cross polar	269.99
MSQ 222-XP30 220 15.2db 15h/15v cross polar	249.99
MSQ 902-14WLA 900M 18.8db 40el 15 4" bm beam	199.99
MSQ EB-144 2m Eggbeater antenna	129.99
MSQ EB-432 432 Eggbeater antenna	119.99
MSQ FAST MAST 20' extended port alum mast	139.99
PAC HandiPacket Small TNC for handhelds	189.99
PAC Spirit-2 Std high performance controller	209.99
PAC Tiny-2 Mk-2 Multi-purpose TNC	129.99
PLY CS3-100 100' 3" copper strap	169.99
PLY IS-IE50LU-C1 50-500 dlx 375/125w bulkhead	49.99
SGC 04-12 Remote kit w/swivel bkt & cable	99.99
SGC 04-22 PowerTalk remote head	699.99
SGC 52-34 RS-232 interface; SG-2000 Xcvr	149.99
SGC 52-62 PSC/12-2 12' ps cable, 2 plugs	49.99
SGC 53-04 PS-30 30A/40A peak unreg ps	329.99
SUA MP-1 Portable 150w 7-50Mhz antenna	129.99
SUA YP-2 Port 2el 20-6m 6-band beam/carry bag	299.99
TER FM-50 Amp indoor/outdoor FM ant kit	69.99
UNI HH-940P 1w submersible VHF marine HH	119.99
UNI HH-985 5w 90ch marine HH/SAME WX alert	149.99
VIB 195 Blue Racer 2000 Std Millennium Bug	149.99
WEL EC-1002-1 40w temp control solder stn	199.99
YAE ATAS-100 HF/6/2/430 motorized mob ant	269.99
YAE FC-1000 Wire auto tuner; 747/757II/767	119.99
YAE FEX-736-220 220MHz module; FT-736R	309.99
YAE FNB-38 600ma 9.6v battery; FT-11/51R	69.99
YAE FTS-22 CTCSS decode unit; FT-8100R	68.99
YAE GA-3000 Twr absorber joint; G-1000/2800	119.99
YAE MH-27A8J TTP mic/modular plug; early 2500M	49.99
YAE MH-27B8 8-pin TTP mic; FT-5200/6200	65.99
YAE TCXO-2 TCXO unit; FT-990	49.99
YAE XF-117C 500 Hz CW filter; FT-100	69.99
YAE XF-117CN 300 Hz CW filter; FT-100	119.99
YAE YSK-7100 Rem separation kit; FT-7100M	69.99
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AR8200B RCVR/CT2800+ 429.99c
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B&K
820 CAPACITANCE METER 199.99m

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ID8 MORSE ID BOARD 59.99m

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IC725 HF XCVR 399.99f
IC728 HF XCVR 489.99c
IC729 HF/6M XCVR/FM 699.99cf
IC730 HF XCVR 399.99f
IC735 HF XCVR 499.99f
IC735 HF XCVR/FL32A 509.99c
IC746 HF/VHF XCVR 879.99c
IC756 HF XCVR 1,199.99m
IC756 HF XCVR/FL100+ 1,239.99f
IC756 HF XCVR/FL222+ 1,259.99c
IC756 HF XCVR/FL52A+ 1,259.99c
IC756 XCVR/FL222+ 1,239.99m
IC756 XCVR/UT102+ 1,239.99m
IC756PRO HF XCVR 1,449.99f
IC761 HF XCVR 669.99f
IC820H 2M/440/UT30+ 639.99m
IC821H 2M/440 XCVR 699.99c
IC910H 2M/440 100/75W 899.99m
LC117 CASE/IC2GXAT 15.99m
LC147 CASE 19.99m
OPC581 CABLE 48.99c
PS55 POWER SUPPLY 129.99f
PS85 POWER SUPPLY 149.99mc
R71A PBT SWL RCVR 399.99cf
R7100 COMM RCVR 899.99mc
R75 SWL RCVR 439.99m
R8500 RCVR 1,149.99f
R8500 RCVR/UT102/+ 1,249.99m

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K3 KEYER 99.99m

KENWOOD
BC19 CHARGER 51.99f
IF232C UNIT ONLY (AS-IS) 29.99m
MC60A DESK MIC 99.99c
MC80 DESK MIC 79.99c
PB36 BATTERY 9.99m
PS53 POWER SUPPLY 179.99c
R5000 RCVR/2 FLTS/VS1/+ ..599.99v
R5000 SWL RCVR 469.99c
SP940 SPEAKER 79.99c
SP950 SPEAKER 119.99c
TL922A HF AMP 1,299.99m
TS680S HF XCVR/6M 399.99f
TS711A 2M FM/SSB XCVR ..549.99f
TS811A 70CM FM/SSB 489.99mcf
TS811A (SCRATCHED) 469.99m
TS940S/AT HF XCVR 899.99f
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MH900PK EAR/MIC 29.99c

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PS30 30/40 UNREG PS 319.99c
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5422 SG239 AUTOTUNER 224.99c

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CSC29 SOFT CASE 14.99c
CSC62 SOFT CASE 99c
CSC67 SOFT CASE 99c
FBA3 CHARGING SLEEVE 19.99c
FP1023 PWR SUPPLY 127.99mc
FTH7008 UHF B BAND HT 89.99f
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FT1000 HF XCVR W/BPF 1,799.99f
FT1000D HF XCVR 2,699.99m
FT1000D/2 CW Filters+ 2,749.99c
FT1000MP EDSP HF XCVR ..1,599.99c
FT1000MP XCVR/YF115C ..1,619.99m
FT1000MP XCVR/2 FILTS ..1,649.99m
FT1000MPMKV XCVR 2,099.99m
FT690R MKII 6M XCVR/TTP ..349.99m
FT7100M MANUAL/SCHMTCS ..4.99v
FT736R 2M/430 XCVR 899.99f
FT747GX HF (NO MANUAL) ..389.99c
FT817 HF XCVR/FNB72 ....519.99m
FT817 XCVR 499.99mf
FT840 HF XCVR/FM747 ....469.99c
FT840 XCVR/FM (SCUFFED) 439.99m
FT847 HF/6/2/440 XCVR 959.99cf
FT920 XCVR/YF115C 819.99m
FT990 AC XCVR (SCUFFED) 1,099.99m
FT990AC HF XCVR (NO MIC) 1,099.99m
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G800SA MED/HD ROTOR 269.99f
MM67 MOUNT 19.99m
NC26B CHARGER 4.99m
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ARC12 SMART CHARGER 44.99v
AR247 220 XCVR 189.99m
PR222 5W 220MHZ HT 152.99f

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WEFAX256 PROGRAM 116.99v

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FPA3 BULBS 6.99m

BENCHER
BY3 GOLD IAMBIC PADDLE..249.99m

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BUSHNELL
121025 BINOCULARS 89.99m
17-7351 7X35 BINOCULAR 34.99m
788000 8" DOBSONIAN TELES.359.99m

BUTTERNUT
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11032 NEXSTAR 5 /TRIPD 944.99

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9515A LIGHT DUTY ROTOR 99.99m

CHEROKEE
AH27F CB HT 107.99c

COBRA
FRS200 HT 34.99m
148NWST CB XCVR 159.99m
19 ULTRA II MOBILE CB XCVR .39.99f

COM SPEC
SPEC DTD-1 DTMF DECODER .44.99c

COMET
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CP5M HD UHF MT; 16.75'CBL59.99f
GR5M TNK LIP W/COAX 60.99mv
M24M 2M/440 MAG ANT 34.99m

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MU510 UHF COMMERCIAL HT .49.99mc
M510 COMMERCIAL HT 49.99m
M510 COMMERCIAL HT 39.99f
M54 COMMERCIAL HT 49.99mcf
U22/A HT (462.575MHZ) 49.99m
U22/B HT (462.625MHZ) 49.99m

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ARX6 6M RINGO ANTENNA ..129.99f
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DAVIS
7852 RAIN COLLECTOR 69.99mf

DCI
223.5 3H 220 MHZ BPF 99.99f

DIAMOND
K400 HATCH/TRUNK MOUNT..29.99f
K412CNMO MOUNT 54.99m
K540 MIRROR/LUG RACK MT..28.99v
K540KM MIRROR/LUGGAGE MT..53.99v
K550KM LUGGAGE MT/COAX .62.99v
K601M MOUNT 62.99cv
K601NMO MOUNT 59.99v
SPM-NMO HD NMO MAG MT..39.99v

EMERSON
EAN3400 TV ANTENNA 24.99m
EVS5000 A/V XTNDR 24.99m

GARMIN
GPS12XL GPS 199.99m
GPS38 GPS RCVR 149.99f

GENESYS
TO5K THROAT/MIC 39.99m

GROTHE
VS4 P/A SETUP 124.99m

GRUNDIG
G2000A RCVR 89.99m
SATELLIT 800 RCVR 449.99mfv
TRAVELLER VII RCVR 89.99m
TRAVELLER II RCVR 44.99m
TRAVELLER III RCVR 89.99c
YB400PE RCVR 134.99fv

HEIL
BM55 MIC/HDST/HC5 ....62.99v
CC1K CABLE 27.99v
GMV VINTAGE MIC/XFMR 139.99c
HCL5 CLASSIC MIC 199.99m
HDAT ATTENUATOR 5.39v
HMMIC HNDMC/ICOM 52.99cv
PRO5IC BOOMSET 124.99c
PRO55 BOOMSET 71.99c

HUSTLER
G71504 2M ANTENNA 179.99m
MO1 MAST/NEW/NO BOX 28.99m
NMO MAG MT (AS-IS) 32.99f

HYGAIN
AR40 ROTOR 249.99m

ICOM
AD51 CHARGE ADAPTER 9.99mv
AD81 CHARGE ADAPTER 12.99m
AD81 CHARGE ADAPTER 12.99f
AD87 CHARGE ADAPTER 7.99m
AH2B HARDWARE/NO WHIP .159.99m
BA12 ADAPTER 19.99f
BC119 01 CHARGER 76.99f
BC119(11) DESK CHARGER..62.99c
BC119(31) DESK CHARGER..89.99c
BC127A CHARGER 18.99m
BC135 CHARGER 69.99m
BC144(01) CHARGER 80.99mv
BP121 BATTERY 15.99v
BP132 BATTERY 79.99m
BP157 BATTERY 59.99c
BP173 BATTERY 124.99m
BP198 BATTERY 49.99m
BP209 BATTERY 44.99m
BP211 BATTERY 79.99m
BP5 5W BATTERY 71.99f
CK70 DC CABLE 35.99c

This Used and Demo Equipment inventory is as of 3/13/03
A current list is available at www.aesham.com or Call Toll Free

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DEMO EQUIPMENT CONTINUED

ICOM
CP13 CIG ADAPTER 34.99m
CP13L CIG ADAPTER....34.99m
CP17L CIG ADAPTER....19.99mf
CSWHH4 SOFTWARE/CABLE ..44.99m
CSWR10 SOFTWARE....40.99c
HM12 HAND MIC....67.99v
HM77A MIC....109.99v
HM90A WIRELESS MIC 119.99m
HM92A MIC....89.99m
HS10SA HEADSET....59.99m
HS51 HEADSET....84.99m
HS85 HEADSET....79.99m
ICF21GM GMRS/FRS HT....134.99cf
ICT2H 2M HT....89.99m
ICT22A HT/SPK-MIC/CP12....259.99v
ICT22A 2M HT....199.99mcf
ICT7H HT....179.99m
ICT81A 6M/2M/440/1.2 HT..233.99v
ICV8 2M HT....116.99mcv
ICV8000 75W 2M FM XCVR...179.95v
IC2GXAT 2M 3W HT....189.99c
IC2000H OWNERS MANUAL....3.99v
IC2720H 2M/440 XCVR 341.95f
IC4008A FRS....69.99mc
IC706MKIIG HF/6M/2M/440..719.95f
IC718 HF XCVR....518.99c
IC746PRO HF/6M XCVR....1,574.95mf
IC775DSP HF XCVR 2,699.99v
IC910H VHF/UHF XCVR....989.95f
LCF21L LEATHER CASE....34.99v
LC128 CASE....34.99m
LC137 CASE....34.99c
LC147 CASE....19.99m
LC148 CASE....22.99c
MB62 BRACKET....23.99c
MB65 BRACKET....29.99mc
OPC023A POWER CABLE....14.99f
OPC184 POWER CORD 24.99m
OPC598 CABLE/AT180....65.99v
PCR1000(02) RCVR....269.99f
PCR1000(02)BON RCVR....339.99mv
PS85 POWER SUPPLY 239.99m
R10(05) RCVR....269.99mf
R2(06) RCVR....124.99m
R5(06) RCVR....179.99m
SP7 SMALL EXT SPEAKER....85.99v
UT63 TONE BOARD....14.99m

IDIOM PRESS
HK-3 IDI HOOK UP KIT....9.99v
K3 LOGIKEY CW KEYER....116.99v

INTERNATIONAL ANTENNA
160M HALF-SLOPER ANT....124.99m

JPS
NIR10 FILTER....79.99m

KANTRONICS
HOSTMASTERII+ V3.4....80.99c
KAM98 TNC....359.99v
KPC9612UPGRADE ONLY....19.99m

KENWOOD
BC17 220V WALL CHG....9.99f
HMC3 VOX/BOOM MIC....53.99c
KNB7A BATTERY....69.99m
KPS15 POWER SUPPLY....134.99m
KSC8 CHARGER (220V)....19.99f
MB430 MOB MTG BKT....44.99c
MC52DM 8 PIN TT MIC....71.99mc
MC60A DESK MIC....134.99mv
MC90 BASE MIC....214.99m
PB39 BATTERY....49.99m
PG3E CIG CORD....8.99m
PG4X CABLE EXT....62.99c
PS40 POWER SUPPLY....134.99mc
SMC33 SPK/MIC....59.99m
SMC34 SP/MIC....34.99c
SP31 SPEAKER....89.99m
THD7A(G) 2M/440 HT/TNC...324.99f
TH42AT 70CM HT....199.99m
TMG707A 2M/440 XCVR....242.99v
TM261A 2M FM XCVR....134.99mcv
TM642AD 2M/220 XCVR....659.99f
TS570D(G) HF XCVR 980.99v
TS870S HF XCVR 2,069.99mf
TS870S HF XCVR/SO2 ....2,119.99f
UBZAL14BK FRS/NEW....24.99m

KOSS
GT/3 HEADPHONES....4.99m

LARSEN
KG144UDPL 2M GLASS MT 69.99c
KG2/70CXPL 2M/440 ANT....89.99v
NMOQSPEC 136-512 1/4 WV..12.59v
NMOTLP TRUNK LIP MOUNT...26.99v
NMO150B 2M 5/8 ANTENNA ..29.99m
NMO150TLM 2M ANT/TRNK MT.49.99v
NMO440C UHF ANT....24.99m

LDG
AT11MP 160-10 AUTO TUNER 199.99mc

LIGHTWAVE
LW-HT 4 LED HEAD TORCH....35.99v
LW3000 7 LED 3 FLASHLIGHT .44.99v

MAGELLAN
GPSTRACKER GPS UNIT....134.99m
MERIDIANXL GPS UNIT....149.99m
0069038000 PC KIT....89.99m

MAHA
MHA102 2M 35W AMP....62.99c
MHA103 AMPLIFIER....99.99m
MHBP132 BATTERY....49.99m
MHBP8H BATTERY 59.99m
MHC777 CHARGER....44.99c
MHC888 CHARGER....53.99mv
MHSC800U ADAPTER....8.99m
MHSC803 ADAPTER....6.99m
MHSI1 ADAPTER....6.99m
MH101Y2 CHGR....59.99m

MAXON
FRS114 FRS HT....25.99cf
GMRS21X/1W2CH/CG/AAHLD.89.99c
MX49FX XCVR....44.99m
MX49FX 49 MHZ XCV....19.99c
PC50 40MHZ HT....19.99mc

MEADE
CVB1001 DIG CAM/BINOCS...89.99m
773 HARDCASE/EXT70 ....64.99m

MFJ
1022 ANT....44.99m
1026 NOISE CANX UNIT....149.99m
1040B RCVR PRESELECTOR...89.99v
1118 DLX DC PWR STRIP....67.99c
113 24/12 HR CLOCK....17.99c
116DC CLOCK....8.99f
118 24/12 HR JUMBO CLOCK..22.99c
1214PC INTERFACE 124.99m
1224 INTERFACE....89.99m
1272MYH TNC/MIC SW....35.99v
1272MZ TNC/MIC SWITCH....25.99f
1275 SOUNDCARD INTERFACE..89.99f
128 CLOCK....49.99mv
1285 IBM SOFTWARE....14.99m
1289M 3-1/2 IBM SOFTWARE 53.99mcv
1290D SOFTWARE....19.99m
1305 5V AC ADAPTER....9.99m
1315 12V AC ADAPTER....9.99f
1778 G5RV ANTENNA 34.99m
203 DIP METER/MISSING COIL.34.99m
204B ANTENNA BRIDGE 71.99f
297 DESK MICROPHONE....62.99c
411 4 POWERPACK....59.99m
422D KEYER/PADDLE 139.99m
44 SCOPE TUNE....13.99c
45B 128K RAM IC....4.99f
462B MULTI-READER....149.99c
493 KEYER WITH KEYBOARD 116.99f
498X CW KEYBOARD KEYER 134.99m
5024B PK/PACCOMM CABLE..12.99f
5080 MFJ-YAE 8P CABLE....9.99m
5084 TNC/ICO 8P CABLE....13.99mc
5084MYV KAN/ICO MODULAR 13.99c
5086 TNC-KEN/ALI 8-PIN CBL.12.99v
5086YH KAM HF KEN 8P....12.99v
5383Y YAE INTERFACE CBL...35.99v
641I3 CHARGER....44.99m
641K CHARGER....44.99cv
751B CW AUDIO FILTER....62.99c
8121 RCVR....34.99m
817 SWR/MTR....80.99c
924 440MHZ ANT TUNER....62.99v
931 ARTIFICIAL GROUND....79.99m
9406X 6M SSB XCVR....224.99m
948 300W ANT TUNER....107.99v

MGE
HFS1 SPEAKER....7.99m

MIDLAND
22430 THROAT MICROPHONE .29.99m
74200 WX RADIO....44.99m
74210 WX RADIO....49.99m
75510 FRS RADIO....29.99mc

MIRAGE
B215G 2M 2/150W AMP....269.99mf
B23 2M 2/30 AMP 89.99f
B23G 2M 2/30W AMP 119.99v
B24G 2M AMP....99.99m
B2516G 2M 25/160W AMP..299.99m
B2518G 2M 25/160W....269.99f
B510G 2M 100W HT AMP....188.99c
D26N 2/60W UHF AMP....234.99m
KP1/10M PREAMP....114.99m
KP1/6M 6M 100W PREAMP ...99.99f
KP2/10M PREAMP....159.99m
KP2/220 PREAMP 159.99m
MY4 YAE FT10/40/50 ADAPTE .7.99f
RC1 CONTROLLER 39.99m

MOTOROLA
50988 FRS....39.99m
53547 GMRS....179.99m

OREGON SCIENTIFIC
BA812E WEATHER 17.99m

PACCOM
PICOPACKET 128K TNC....139.99m

POUCH
P5 POUCH....13.50v

PREMIER
SPM500 THROAT MIC....15.99m

RANGER
RCI2950DX 10/12M XCVR...239.99m
RCI2970DX 10/12M XCVR...359.99c

RCA
ANT1020 TV/FM INDOOR ANT .17.99c

RF CONCEPTS
223 2M 2/30W AMP (NEW)....89.99f

RF INQUIRY
CF250ECOMMON MODE FILT .76.99v

RMS
CN220 HF-220 METER....89.99c

SANGEAN
ATS505 SWL RCVR....114.99m
ATS818ACS RCVR/TAPE....199.99mc

SGC
0401 SG2000 HF XCVR 1,439.99v
0501 SG2020 XCVR....599.99m
5296 SG500 500W HF AMP .1,124.99v
5417 SG-231 HF+6M TUNER..476.99cv
5418 SG237 TUNER/BOARD ..224.99m
7007 POWER CLEAR DSP 249.99m

SHAKESPEARE
495 MOUNT 15.99v

SHURE
526TSERIES II DESK MIC....111.99v

SMILEY
270A 2M/440 HT TELES ANT .17.99m

SOLARCON
GPK1 GROUND PLANE....35.99c

SONY
AN102 ANTENNA....69.99m
ICFB200 AM/FM CRANK RAD ..44.99c
ICFSW07 SWL RCVR 359.99mfv
ICFSW1000T RCVR 359.99m
ICFSW30 SWL RCVR 69.99c
ICFSW77 SWL RCVR 419.99m

SUPER ANTENNAS
MP1 ANTENNA....114.99m

TERK
LF20 AV EXTENDER....79.99m
TV42 TV ANTENNA....49.99m
TV50 AMP TV ANTENNA 71.99v

TIMEWAVE
ANC4 NOISE CANCELLER....179.99m

UNIDEN
BC147XLT SCANNER....80.99c
BC248CLT SCANNER 99.99m
BC80XLT SCANNER....104.99m
PRO538W CB XCVR 54.99m
SC150 SCANNER 143.99c

VALOR
PHF6 6M ANTENNA....19.99m
PM144440BN BNC MAG MT ...9.99f

VANCO
HF24RS HEADPHONES....17.99m
370052 DIG MULTIMETER....17.99c

VECTRONICS
AT100 ACT ANT....64.99v
DL2500 DRY LOAD....161.99v
HPF1 HI-PASS FILTER....14.99m

VIBROPLEX
150 SQUARE RACER....124.99m
153 GOLD STRAIGHT KEY 249.99m

WEST MOUNTAIN RADIO
RB/M8/C RIGBLASTER....94.99m
RB/NO/8C INTERFACE....53.99c

WILSON
TRUCKER 2000....49.99m

WINEGARD
LB2000 DUAL LNB 69.99m

W4RT
OTT1 TUNE CONTROL (FT817) 39.99

X-10
SP-554A MOTION DETECTOR .26.99v

YAESU
ADMS2G SOFTWARE/7100....34.99cv
ADMS3 SOFTWARE VR500....34.99m
ATAS100 MOBILE ANTENNA..269.99v
ATAS120 MOBILE ANTENNA..299.99v
CA10 CHARGE ADAPTER....11.99mv
CSC67 CASE....16.99v
CSC69 FOR FNB40 ....13.99m
CSC72 CASE....17.99c
CSC83 SOFT CASE....22.99f
CSC88 CASE....12.99m
CT26 CABLE....19.99m
CT44 ADAPTER....9.99m
EDC12 CIG ADAPTER....24.99m
FC10 EXT COAX AUTO TUNER .341.99v
FC30 ANTENNA TUNER 215.99v
FH1 KEYPAD....79.99m
FIF232C INTERFACE....84.99m
FNB31 BATTERY....41.99m
FP1030A 25A PS W/MTRS....224.99mfv
FT1000MPMKV 200W HF ..2,699.95f
FT2800M 65W 2M XCVR....143.99c
FT33R HT/TONE/TTP+....149.99m
FT50RD/41B 2M/440 HT....229.99c
FT7100M XCVR....395.99f
FT897 XCVR....890.95mc
FT90R 2M/440 50/35W 314.99f
FT920 100W HF/6M XCVR 1,205.95f
G450A ROTOR....233.99f
HRI100 WIRES UNIT....149.99m
MD100A8X MIC....114.99m
MH30A2B SPKR/MIC....24.99m
MH36B6J MIC....49.99m
MH36C8J MIC....54.99m
MH37A4B SPKR/MIC....27.99m
NC55B CHARGER....11.99v
NC66B CHARGER/VX1R....14.99m
SP7 SPEAKER....35.99m
VC22 HEADSET....44.99m
VR120 RCVR....152.99mcf
VR120D COMM RCVR 179.99mf
VR500 RECEIVER....269.99fv
VR5000 RCVR....799.99m
VR5000 RCVR DVS4/DSP1 ..869.99f
VXF10 HT....104.99m
VX150 5W 2M HT....134.99f
VX5RS SIL 5W 6/2/440 HT..284.99f
VX7RB BLK 5W/6M/2/440 HT .314.99fv
YA007FG ANTENNA....79.99m
YF112C CW FILTER....107.99v
YH1 HEADPHONES....34.99m
YSK7100 RMT SEP KIT....62.99cv

A portion of the Used Equipment inventory in Milwaukee

Please used these lists as a guide only...

These *Used and Demo Equipment* lists are compiled from an actual inventory as of 3/13/2003. However, due to turnover from daily selling and trading, the actual items listed may or not be available.

All of our stores are linked via computer which allows real time access to our ever changing inventory. For your needs, you may call any of our locations to check for availability or to discuss an alternative with one of our salespersons.

The *Used and Demo Equipment Equipment* lists are also available on our web site and are updated every week (**www.aesham.com**). Check it Out!

SANGEAN

ATS-404 Full Performance, Full Featured Digital, AM/FM Stereo Shortwave Receiver Continuous coverage (continuously tunes all shortwave bands and any frequency in between). AM reception with 9k/10k switch, FM plus stereo with earphones. Keypad entry and auto and manual search buttons, 45 memory presets, auto memory scan. Illuminated LCD display, tone control, lockswitch. Dual time (12/24 hour) clock and adjustable sleep timer with new Human Wake System. Carrying case and stereo earbuds included. Uses four "AA" batteries. 6.5"w x 4"h x 1.25"d.. **$79.99**

ATS-505 Professional Digital Multiband Receiver AM/FM stereo/shortwave and SSB reception • Continuous coverage (tunes all shortwave bands and any frequency in between) • Auto memory scan (45 presets, plays each in sequence) • Auto preset system, determines all memory presets based on signal strength of station • Fine tuning • 9/10kHz switch • Lockswitch • Tone control • Local/DX switch • Dual time clock, adjustable sleep timer and Human Wake System with repeating beep tone (volume increases every 15 sec.). Includes carrying case and earphones **$129.99**

ATS-818CS *(left)* **World Band Receiver with Programmable Cassette Recorder** 16 bands, continuous coverage 50kHz to 30MHz. AM/SSB/CW/FM modes; stereo via headphones, 45 memory presets. Tuning methods: Direct input, auto or manual scan, memory recall, rotary dial. AM wide or narrow filter, tone and RF gain controls, signal strength and battery indicator. Programmable cassette recorder, play and record LED indicator, auto-stop feature. Clock with dual time display, alarm and sleep timer. Uses seven "AA" batteries (not included). Includes AC adapter and external antenna adapter. 11.5"w x 7.75"h x 2.75"d, 5 lbs **$229.99**

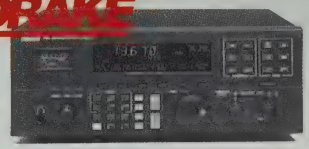
ATS-818 *(right)* **World Band Receiver** All features above, w/out cassette recorder **$179.99**

ATS-606A Compact Digital All-Band World Receiver *(left)* Continuous all-band coverage 153 kHz-30MHz. AM/FM (FM stereo with earphones). 54 memories, manual or keypad tuning, 1khz/step fine tuning, scanning, LCD display. Dual time clock and sleep timer. 5.75"w x 3.5"h x 1.25"d. **$149.99**

ATS-909 FM-Stereo/MW/LW/SW PLL Synthesized Receiver *(right)* Five tuning methods: Direct frequency, Autoscan, Manual, Memory recall and Rotary, 307 memories. Stereo via earphones, SSB reception. MW 9k/10k switch. AM wide/narrow filter and FM mono/stereo selector. Dual time with three timers and sleep timer. Clock feature displays 42 city times. RF gain/tone controls. Lock switch, recorder output jacks, battery and signal strength indicator. Uses 4 AA batteries or 6V DC; AC adapter incl. 8.5"w x 5.375"h x 1.375"d, 1.9 lbs... **$249.99**

DT-200V Broadcast and TV Band Receiver (left) Fits in shirt pocket or clips to belt. Covers AM and FM broadcast bands (FM stereo via headphone), plus the audio portion of TV channels 2 to 13. LCD display, up and down tuning buttons, auto-scan, 19 memories, automatic shut-off, built-in speaker. Belt clip and stereo earphones included. Uses two "AA" batteries. 4.375"h x 2.625"w x .75"d, 5 oz **$69.99**

DRAKE



R-8B Communications Receiver Covers 10kHz-30MHz (35-55MHz, 108-174MHz w/optional VHF converter) • Dual VFOs • 1000 memories • Multi-function scan • AM/FM/RTTY/CW/LSB/USB modes • 5 voice bandwidth filters • Built-in receive preamp/attenuator and noise blanker • S-meter • Passband offset • Selectable AGC • Built-in speaker • Multiple antenna inputs • Sequential tuning • 3 selectable tuning step sizes • Keypad entry of mode & bandwidth • Selectable sideband • Synchronous AM detector • RS-232 computer control • Speaker/recorder connections • Multi-voltage power supply • 13.5"w x 5.25"h x 13"d, 13 lbs **$1499.99**

1590 VHF Converter *(left)* 35–55MHz and 108-174MHz **$269.99**

MS-8 External Speaker *(right)* for R-8B.... **$59.99**

YAESU

VR-500 High Performance Mini Receiver General coverage 100kHz-1300MHz (cell blocked) • CW, SSB, LSB and USB, AM and FM wide/narrow modes • Includes AM/FM broadcast, HF shortwave up to 16MHz, VHF/UHF TV bands, VHF AM aircraft band, and a wide range of commercial/public safety frequencies • Keypad entry • 1000 memory channels • 100 "skip" memories • 10 search memories • 100 dual watch memories • Priority • Powered by 2 "AA" alkalines or 9-16V DC • 2.2"w x 4.2"h x 1"d, 7 oz ..... **CALL**

FRG-100B High Performance Communications Receiver Covers 50kHz-30MHz – CW, SSB, AM modes; FM optional. 50 tunable memory channels and two band edge memories. Multi-function scanning. Adjustable SSB carrier offset, selectable AGC rate, noise blanker, all mode squelch, RF attenuator, twin 12 and 24 hour programmable clocks with on/off timer and sleep-timer, CAT system for PC control. Bright backlit LCD readout with adjustable control. 120/240 VAC or 12-14VDC @ 1.2A 9.375"w x 3.5"h x 9.5"d, 6.6 lbs *(See Price Guide for optional filters and high-stability oscillator)* ..... **CALL**

VR-5000 Multimode Scanning Receiver Continuous frequency coverage from 100kHz to 2.6GHz (cellular blocked) • Direct keypad frequency entry and a wide variety of scanning capability • 2000 memory channels, 100 memory banks with alphanumeric labels • Dual receive • Bandscope graphical activity monitor • "Smart Search" automatic memory loading feature • World clock with time zone map • 13.5VDC @ 0.7A • 7.1"w x 2.75"h x 8.0"d, 4.2 lbs ..... **CALL**

VR-120D Mini Communications Receiver Provides general coverage receive from 100kHz–1299.995MHz (cell blocked) on AM/FM wide and narrow modes; includes AM and FM broadcast, HF shortwave, VHF/UHF TV, VHF AM aircraft band, and a wide range of commercial and public safety frequencies. • Rugged outdoor-ready case • Ultra-long battery life • BNC antenna connector • 4-button operation • Easy access, wide-band coverage • Special "preset mode" aids in quick tuning • Super simple one-touch memories • Versatile 640 channel memory system • Option for AC or DC power with optional adapter/cable • Wide selection of scanning modes • 3.3"h x 2.3"w x 1"d, 6.9 oz ..... **CALL**

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SONY®

WORLD BAND RADIOS

ICF-SW07 PLL synthesized • FM 76-108 MHz, SW 1621kHz-29.999 MHz, MW 530-1620kHz, LW 150-529 kHz • FM stereo at headphone jack • SSB/CW, AM synchronous detection • SW station call, my-memory tuning plus 4 other tuning methods: direct manual, scan or preset • 3000 frequency memories • One-push access to 8 major stations (BBC/VOA/DW, etc.) • Editable station labels • 24-city name/time display • Built-in timer • Clock with sleep timer and alarm • Requires 3 VDC or 2 "AA" batteries • Includes external active antenna module, AC adapter, stereo earphones, leather case • 5.3"w x 1.2"d x 3.6"d, 9.1 oz..... **$399.99**

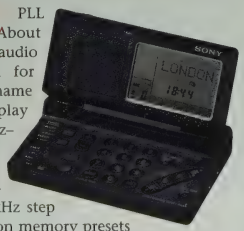
ICF-SW11 Compact • 12 bands including FM stereo, MW, LW and SW bands 1–9 • Easy analog tuning with LED indicator • FM stereo headphone jack for private listening in noisy environments • DC in-jack for optional AC adapter • 6.5"w x 3.75"h x 1.3"d **$49.99**

ICF-SW12 11 bands, including FM, AM and SW bands 1–9 • Designed for travel – compact size with protective lid • World time clock and universal time coordinator to calculate time in cities worldwide • Backlit LCD display • LED tuning Indicator for precise center-frequency indication and accurate tuning • Built-in alarm with convenient snooze button • Requires 2 "AA" cells • 4.3"w x 3.1"h x 1.2"d **$99.99**

ICF-SW35 PLL synthesized, dual Conversion super hetrodyne • Range: AM (530-1710 kHZ), FM (76-108MHz) • FM stereo at headphone jack • Shortwave from 2250kHz-26.1MHz • UP/DOWN tuning buttons 1kHZ/5kHz tuning steps in shortwave • 50 memory presets (5 banks of 10 presets each) • 1 or 5 kHz step tuning on SW • Memory scan • Built-in digital clock with two wake times and 60-minute sleep timer • Dial illumination button, lock switch, attenuator • 2.5" speaker plus earphone jack • Includes cloth protector and SW guide • Requires 3V DC or two "AA" cells • 6.7"w x 4.5"h x 1.4"d, 16 oz **$89.99**

ICF-SW40 PLL synthesized • Analog/digital tuning • 14 bands • Range: LW/AM/SW (3850kHz-26.1MHz) and 76-108MHz FM (FM stereo-to-headphone jack) • 20 station memory presets • 1kHz step tuning • Built-in clock with dual standby function • 6.75"w x 4.25"h x 1.6"d, 15 oz..... **$129.99**

ICF-SW77 PLL synthesized • Electronic rotary tuning • Preset, 10-key direct, manual and scan tuning • 150kHz–30MHz and 76-108MHz (FM stereo-to-headphone jack) • 50Hz tuning steps • Clock display • 5-event programmable timer • Sleep timer • 162 memory presets with station name tuning • SSB/CW and AM synchronous detection • Backlit LCD display • World time scale • Large, 5"x 3" speaker • Requires four "C" cells • Includes 120V adapter, earphones, belt and wind-up antenna • 10.8"w x 6.8"h x 1.8"d, 3.3 lbs..... **$469.99**



ICF-SW100S PLL synthesized • About the size of an audio cassette – ideal for travel • 24 city name and time display • Range: 150kHz–30MHz and 76-108MHz FM (stereo-to-headphone jack) • 1kHz step tuning • 50 station memory presets • Editable station labels • Auto scan, manual and 10-key direct access tuning • Built-in clock with sleep timer and dual standby • Includes stereo headphones, 120 VAC adapter, active antenna and soft carrying case • Requires 3V DC or two "AA" cells • 4.3"w x 0.9"h x 2.8"d, 8 oz..... **$349.99**

ICF-SW1000T PLL synthesized • 1 kHz step tuning • 130kHz–30MHz and 76-108MHz FM (stereo to headphone jack) • Built-in stereo cassette recorder with auto-reverse and timer record • SSB and synchronous AM detection • 32 memory presets • Built-in clock with alarm, dual standby and sleep timer • Requires 3VDC or 3 "AA" cells • Includes vinyl case, stereo earphones, hand strap and wind-up antenna • 7"w x 4.25"w x 1.6"d, 1 lb. **$399.99**

ICF-SW7600GR PLL synthesized • Manual and auto scan 1kHz step tuning • 10-key direct access tuning • 150kHz–30 MHz & 76-108 MHz FM • Dual conversion superhet • SSB/CW and AM synchronous detection • Multi-function LCD digital readout • Dial light and LED tune indicator • Built-in clock with sleep timer and dual standby functions • Record output jack • 9/10kHz MW tuning switch • External antenna jack • Large 3" speaker • Requires 6V DC or 4 "AA" cells • Hold button preventing accidental changes to presets • 100 station memory presets • World time/dual clocks • Includes vinyl case, wind-up antenna and handbook • 7.6"w x 4.75"h x 1.3"d. 1 lb., 5.5 oz..... **$179.99**

AN-LP1 Active Antenna Enhances sensitivity for clearer reception of even weak signals. • Light weight • Provides high sensitivity and noise reduction • Active antenna controller with rotary tuning • 19" loop that folds to 7" for portability • Easy to mount • Includes soft carrying case..... **$89.99**

AN-1 Outdoor/Indoor Active Antenna Improves LW/MW/SW reception from 150KHz to 30MHz. A low noise and interference reducing FET amplifier module, with a 59 inch telescopic whip, mounts outdoors or inside a window or attic. Includes a 39-foot coaxial cable which connects to a control box at the receiving position. An output lead with two alligator clips, or mini-plug, connects to the radio's antenna input. Uses 6 AA cells or 9V AC adapter (neither are supplied)..... **$99.99**

AN-102 Indoor Active Antenna Three ways to use! For SW, a coupler cord from the antenna controller plugs into to radio's external antenna jack, or a special coupler cord from the controller clips onto radio's external antenna. For LW/MW, radio is positioned next to controller, coupling without a direct connection. Includes antenna module with 45" whip antenna, antenna controller box and two coupler cables. Uses 4 AA cells (not included). **$79.99**

GRUNDIG

G-2000A Porsche Design Shortwave Radio Designed for Grundig by F.A. Porsche, This radio has a titanium finish look with a genuine leather case that closes around the radio like a book and serves as a stand. • Ranges: (FM) 87.5–108MHz; (MW) 530–1710kHz; (SW) 2.3–7.4 and 9.4–26.1 MHz • Modes: AM, FM-stereo (with earphones) • Illuminated multifunction LCD display • Digital keypad and Up/Down manual tuning • 20 user-set station memorie • Clock with 12 or 24 hour selectable format, alarm (radio or buzzer) and sleep timer (10-90 minutes) • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a leather case, earphones, requires 3 AA batteries • 5.5" x 3.5"h x 1.25"d, 7.2 oz **$99.99**

E-TRAV VII

E-Traveller Digital Radio Only 4.5" x 2.563" x 0.875" and weighing 5.3 oz. Sleek, design that fits into a pocket, briefcase or purse. Titanium color with black accents, combined with rich, rubberized side panels. Superior dual conversion superheterodyne circuitry for optimal sensitivity and selectivity. • (FM) 87.5–108MHz; (MW) 530–1710 kHz; (SW) 2–30MHz continuous coverage • Modes: AM, FM-stereo (with earphones) • Up/Down digital controls with auto-scan and manual tuning • 30 memories with scan • 12/24-hour selectable format clock, alarm and sleep timer • Built-in telescopic antenna for FM/SW and ferrite bar for AM • Includes a carrying pouch, 2 AA batteries, Shortwave Listening Guide..... **$79.99**

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AOR

NEW

AR-8200 MK III-B All-Mode Wide-Band Modular Handheld Receiver Improved! Wider coverage, a new TCXO for greater stability, improved sensitivity and intermod, enhanced S/N and better audio. • 500kHz–3000MHz (cell blocked) • FM-w, FM-n, super narrow AM, AM-w, AM-n, USB, LSB, CW modes • 1000 memories (20 banks x 50 channels, 40 search) • Two VFO, twin frequency readout • Alphanumeric display • Telescopic antenna, detachable MW bar antenna • Band scope with save trace facility • Bar signal meter • Step-adjust, frequency offset, AFC • Optional memory expansion, CTCSS squelch/search, tone eliminator, 20 sec. record/playback and voice inverter • Noise limiter • Attenuator • Computer control and programming capability • Includes NiMH cells (charge while operating) • 2.4"w 5.7"h x 1.0"d, 0.75 lbs **$569.99**

AR-3000AB All-Mode High Performance Profes-sional Monitor 100KHz-2036MHz (cell blocked) • 400 memory channels • FM-w, FM-n, AM, USB, LSB, CW • Tri-conversion IF stage • Scans 50 channels per second rate • RS-232C port for computer control • 4 search banks • Manual tuning dial • BNC antenna connector • Scans 20 channels per second • 5.4"w x 3.1"h x 7.9"d, 2.4 oz .. **$1099.99**

AR-8600 MK II-B Multimode Mobile/Base Receiver Use anywhere - mobile, base or portable. Powered from an external 12V DC power supply, optional DC lead from a 12V vehicle or from an optional internal NiCad pack. • All mode receive – including super narrow FM • Programmable tuning steps to 50Hz • RS-232 port (control software available from AOR web site) • Coverage: 530kHz–3GHz (cell blocked) • 1000 memory channels (20 banks) • True carrier reinsertion in SSB modes • Improved front end with RF preselection of mid-VHF bands • Step adjust frequency, AFC • Noise limiter and attenuator • Versatile band scope with save trace facility • Twin frequency readout with bar signal meter • Separate volume and squelch controls • Write protect and keypad lock • Programmable scan and search • RS-2332 computer port • Flash-ROM memory (no battery required) • Slot card sockets • BNC socket for 10.7MHz output • 5.9"w x 2.2"h x 6.9"d, 4.9 lbs **$899.99**

SDU-5500

Spectrum Display Unit Visually identify signals and relative strength • Works with AR-5000B/AR-3000AB, ICOM base and other receivers with a 10.7MHz IF output • 10MHz bandwidth – 10kHz to 2600MHz • 5kHz/30Hz resolution • White/blue mono LCD **$1099.99**

MFJ ENTERPRISES, INC.

752C SSB/CW Audio Filter Pull out stations from noise and interference. Peak, notch, low or high pass control helps eliminate hetrodynes and interference. Filters tune 300 to 3000Hz; bandwidth varies from 40Hz to almost flat; notches to 70dB. Switchable inputs for two radios. Uses 9 to 18VDC. 10"w x 2"h x 6"d **$89.99**

8100W Regenerative 10' wire makes world-wide stations come in loud and clear. Tune international shortwave, SSB/CW, RTTY and packet. Covers 75-13M SW bands. Vernier drive tuning. Uses 9V battery, earphones or plug-in speakers. 7"w x 2.5"h x 6"d, 1 lb..... wired **$89.99**

8121 World Band Receiver FM, medium wave, long wave and 18 shortwave bands. Sony integrated circuit design provides excellent sensitivity and selectivity. Built-in telescopic antenna. LED tuning indicator. World time zone and frequency charts on back panel. Built-in 3" speaker. 4.5"h x 7"w x 1.5"d Works on 6V DC or 4 AA cells..... **$29.99**

956 LW/MW/SW Preselector/Tuner Improves reception of signals from 150kHz to 30MHz. Boosts signals while rejecting images, intermodulation, other phantom signals. 2"h x 3"w x 4"d..... **$49.99**

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55 years of outstanding performance and service establishes Grundig as a leader in consumer audio. Decades of making the Satellit series radio defines them as the benchmark in shortwave technology. The Satellit's extensive frequency coverage includes Long wave, AM-broadcast and Shortwave, covered continuously from 100-30,000 KHz.; FM-stereo broadcast, 87-108 MHz.; VHF aircraft band, 118-137 MHz.

ENGINEERED FOR THE BEST POSSIBLE RECEPTION

- Single sideband (SSB) circuitry for listening to two-way communications, such as ham radio.
- Three built-in bandwidths, using electronically switched IF filters; 6.0, 4.0, 2.3 KHz.
- Synchronous detector for improved quality of AM and shortwave broadcast signals. Minimizes fading distortion and adjacent frequency interference.
- Selectable fast and slow AGC mode.
- High dynamic range, allowing for detection of weak signals in the presence of nearby strong signals.
- Excellent sensitivity and selectivity.
- Digital frequency display to 100 Hertz accuracy on AM, SW and VHF aircraft bands. 50 Hz when SSB used.
- A real tuning knob, like on traditional radios, but with ultra-precise digital tuning and with absolutely no audio muting when used.
- A modern, direct-frequency-entry keypad for instant frequency access and push buttons for fixed-step tuning.
- 70 programmable memories, completely immune to loss due to power interruptions. Memory scan feature.

LEGENDARY GRUNDIG AUDIO

- Outstanding audio with separate bass and treble tone control.
- FM stereo with headphones or external amplified stereo speakers.
- Includes high quality stereo headphones.
- Multiple audio outputs: line level output for recording, stereo headphone output.

FULL ANTENNA CAPABILITIES

- Built in telescopic antenna for SW, FM and VHF aircraft band.
- External antenna connections for the addition of auxiliary antennas, e.g. professionally engineered shortwave antennas; long-wire shortwave antennas; specialized AM broadcast band antennas for enthusiasts of AM DX'ing; FM broadcast band antennas; VHF air band antennas.

MORE HIGHLY DESIRABLE FEATURES

- Large, informational LCD display of operational parameters, measuring a massive 6 1/2" x 3 1/2". Easy to read and illuminated.
- Dual, 24 hour format clocks and dual programmable timers.
- An elegant, calibrated, analog signal strength meter.
- Auto backlight shutoff to conserve battery life.
- Low battery indicator.
- Operates on six internal "D" cell batteries or the included 110V AC adapter (220V AC adapter is available).

Dimensions: 21" L x 8 1/2" H x 9 1/2" W
Weight: 14.5 lb.

Yacht Boy 400PE

Yacht Boy 400PE AM/FM/SW Radio

• Digital Dual-Superhet tuner • 1.711-30 MHz SW range • SSB with fine tuning control • 40 random presets • Direct frequency entry • Manual and auto tuning • Built-in antennas • Supplementary SW antenna • SW antenna jack • FM stereo with headphones • LCD shows frequency, time and more • Dual 24 hour clocks • Alarm • Sleep timer • Battery operated or included AC adapter.

Dimensions: 7 3/4"W x 4 5/8"H x 1 3/8"D

Yacht Boy 400PE AM/FM/SW Radio - $149.99

S350

Grundig's ALL NEW AM/FM/SW Field Radio

• Sensitive analog tuner with digital frequency readout • 2.3-27.41 MHz SW range • Fine tuning control • RF gain control • Low-pass filter • Built-in antennas • External antenna jacks • Stereo line level out • Separate bass, treble control • Digital clock with alarm • Sleep timer • Headphone jack • Uses 4 D cell batteries or included AC adapter.

Dimensions: 10 1/2"W x 6 1/2"H x 3 1/2"D.

S350 AM/FM/SW Radio - $99.99

Yacht Boy 300PE

Yacht Boy 300PE AM/FM/SW Radio

• LCD displays time, frequency and memory station • Display light for momentary illumination • Digital PLL synthesized receiver • Direct frequency entry system for instant access to station • 24 station memory presets • Sleep timer and alarm • FM/SW 360 degree rotary telescopic antenna / MW ferrite far antenna • External antenna jack for improved shortwave reception • Includes: AC adapter, carrying strap, case, earphones and three AA batteries.

Dimensions: 5 3/4"W x 3 1/2"H x 1 1/8"D

Yacht Boy 300PE AM/FM/SW Radio - $79.99

Mini 100 PE

Mini 100 PE AM/FM/SW Radio

• Telescopic antenna • Earphones and belt clip • Soft leather carrying case • LED indicator, six shortwave broadcast bands

Tuner Frequency Ranges:
FM 88-108 MHz AM 525-1710 MHz
SW1 5.80-6.40 MHz SW2 6.90-7.50 MHz
SW3 9.40-10.00 MHz SW4 11.65-12.15 MHz
SW5 15.00-15.65 MHz

Dimensions: 7 3/4"W x 4"H x 3/4"D

Mini 100 PE AM/FM/SW Radio - $29.99

ICOM

PCR-1000-02 BON PC Communications Receiver Connect the 1000-02 to a lap/desktop IBM-compatible for reception of a wide range of frequencies. *NOW* includes the Bonito software! Listen to favorite stations in the background while running other applications. 100% PC hardware external. Includes everything needed to connect to a PC: power supply, speaker, antenna and cable • 0.01-823.999MHz, 849.000001-868.999MHz, and 894.000001-1300MHz (cell blocked, guaranteed specifications 0.5-1300MHz, only) • WFM, FM, AM, SSB, CW • 1000 memories per file • Requires Windows® OS, 10MB free space, 16MB RAM, FD drive, RS-232C (38400+ bps) serial interface, 640 x 480 display ..... **CALL**

R-8500-02 Wide-band All-mode Receiver 0.1-2000MHz (cell blocked) with 10Hz resolution. All modes: AM, FM, WFM, SSB, CW and optional TV-R7100 TV/FM adapter. Direct keyboard entry. Versatile scan functions; 1000 tunable multi-function memories; 20 banks of 40 channels plus auto-write and skip areas. 20 scan edge memory channels store 10 sets of frequencies for programmed scan, plus priority. Selectable AGC, noise blanker, tone, squelch, record jack. Selectivity: 500Hz, 2.3, 6 and 15kHz. RS-232C interface. Voice synthesized read-out optional. 110/220V AC. 11.875"w x 4.875"h x 10.875"d, 16.5 lbs ..... **CALL**

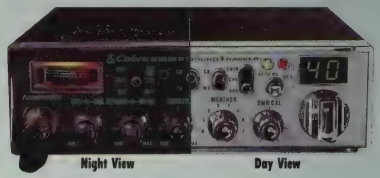
R-75 HF + 50MHz Receiver Covers a wide frequency range from 0.03-60MHz and includes 101 memory channels. All mode – USB, LSB, CW, RTTY, AM, S-AM and FM. Alphanumeric readout with digital bar S-meter. Conventional tuning plus numeric key pad for direct input. Features include high stability receiver circuit, superior dynamic range, 2-level preamp, noise blanker, synchronous AM detection, twin PBT capability, front mounted speaker, filter options and optional UT-106 DSP. Operates from 13.8V DC @ 1.1A, or supplied AC adapter. 9.5"w x 3.75"h x 9"d, 6.6 lbs ..... **CALL**

Cobra

CB RADIOS

148NW ST Full Featured AM/SSB Mobile CB Radio 12W PEP SSB RF output • 4W AM RF power (FCC max. allowed) • 120 channels • Dual conversion AM receiver • SoundTracker™ system • NightWatch™ dimmer control • USB/LSB/AM • Digital channel indicator • RX/TX indicators • Switchable noise limiter & blanker • RF-gain control • Hi/low tone switch • PA capable • SWR indicator • Instant channel 9 • 7.25" x 2.25" x 8.625", 6 lbs. **$179.99**

19DX III AM Mobile CB Radio Compact design • 40 channels • Combination S/RF meter • 4W RF output (max. allowed) • Instant channel 9 switch instantly switches from any channel to Emergency Channel 9 • TX indicator • CB/PA switch selects CB operation or PA operation • Mobile bracket • 4.563"w x 1.75"h x 7.25"d, 21 lbs **$49.99**



29WXNW ST Full-featured Weather Band CB Radio with Illuminated Front Panel 40 channels, AM • Instant channels 9 and 19 • 7 NOAA weather channels with weather alert tone • 4W RF power output • SoundTracker™ system • Tactile controls • Dimmer control • Switchable automatic noise limiter and noise blanker • SWR calibration • PA capability • NightWatch™ illuminated front panel • 7.2w" x 2.2h" x 8.6d", 6 lbs..... **$129.99**

HH-ROAD TRIP SoundTracker® 40 Channel CB Handheld with Antenna Keep in vehicle for 24-hour emergency access, to communicate between vehicles, and to receive the latest weather information from 10 NOAA channels. SoundTracker® system cuts noise up to 90% and 4W of power gives up to 4 miles range. High/low power switch reduces power consumption, extending battery life. Operates on 9 AA alkaline or NiCads or off vehicle battery with the included DC cord with cigarette lighter plug. Included magnet-mount antenna provides maximum range and flexibility. 6.75"h x 2"w x 1.75"d **$79.99**

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CB RADIOS

PC-78XL **AM Mobile CB Radio** Full PLL-synthesized 40 channels • DSC, Dynamic Squelch Control • Instant channel 9 • Microphone and RF gain controls • Delta tune control - Fine tunes received signal and reduces interference • Noise blanker and automatic noise limiter • PA/CB switch • Dimmer control • TX/TX LED indicators • Antenna warning LED - lights when high SWR condition is present • 7.25"w x 8.625"d x 2.375"h, 4 lbs. 3 oz.... **$99.99**

PC-78LTW Same basic features as the PC78XL with the addition of NOAA weather channel reception with weather alert..... **$119.99**

PRO-520XL **Compact 40 Channel AM Mobile CB Radio** 4W • Instant channel 9 access • 4-segment S/RF meter • TX LED • LED channel indicator • RF gain • PA switch • Automatic noise limiter • 4.5"w x 6.75"d x 1.375"d, 1 lbs. 10 oz..... **$54.99**

RECOMMENDED ANTENNAS FOR CB

COBRA

HGA-1000 Magnet mount base loaded mobile antenna with coax and connector..... **$19.99**

HUSTLER

HQT A 55" top loaded whip with Mirror Mount bracket. Comes with 12' cable with PL-259 connector. Chrome with a white coil **$27.99**

HQ-27M A 55" top loaded whip with Trunk-lip Mount. Comes with 15' cable and PL-259 connector. Chrome with a white coil..... **$36.99**

LARSEN

NMO-27C Base loaded mobile, less mt. **$33.99**

NMO-TLP Low-profile trunk mount for NMO-27C. 17' coax and PL-259 ..... **$29.99**

NMO-MM NMO-27C magnet mount. Comes with 12' coax and PL-259 connector.. **$32.99**

SOLARCON

A-99 Base Station Antenna. Three-piece fiberglass design uses a half wave over a quarter wave section, and is tunable. Entire 17 ft. 8 in. length radiates producing about 3 dB gain **$64.99**

GPK-1 A-99 ground plane kit. Adds 30% more power gain and lower angle of radiation **$39.99**

WILSON

W-1000 5' base loaded mobile antenna. Available in three mount configurations. All come with 18' cable and PL-259 connector.

ROOF thru-hole mount..... **$57.99**

TRUNK mount **$65.99**

MAGNET mount..... **$76.99**

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FRS RADIOS

53543 **TalkAbout 250** (Camo) • 38 interference eliminator codes • Built-in hands free operation (VOX) – when used with optional audio accessory • Time-out timer • Transmit light • Audible low battery alert • Scan • Battery meter • LCD display • Audio accessory connector • Removeable belt clip • 3.75"h x 2.25"w x 1.375"d x 6.5"h with antenna • 1 year warranty..... Closeout **$49.99**

56360 **T6220 Talkabout® FRS** 14 UHF frequencies, 38 privacy codes • Simple menu • Backlit LCD and black case • Button beeps • Powersave • Time-out timer • Transmit LED • Talk group filter • 5 audible call alerts • Audio accessory connector • Lock button • Ring alert • Signal strength indicator • Scan • Uses "AA" alkalines • Rechargeable ready with charging dock • Belt clip ..... Closeout **$39.99**

53834 **T5200 Talkabout® FRS Radio** • 14 FRS UHF frequencies, 38 privacy codes • Backlit LCD display • Rosewood-colored case • Powersave mode • Time-out timer • Transmit LED • 5 audible call alerts • Audio accessory connector • Lock button • Uses "AA" alkaline batteries • Belt clip..... Closeout **$39.99**

KENWOOD

FRS RADIOS

UBZ-LH14BK **FreeTalk™** 500mW • 14 channels • 38 talk groups (CTCSS) • Privacy talk voice • 4 call ring tones CORDS (In-Range Detect System) • Battery saver and auto off • Low battery alert indicator/beep • Works up to 40 hrs operation with 3 "AA" alkaline cells • Only available in black • 3.5"h x 2.25"w x 1"d..... **$69.99**

ICOM

FRS/GMRS RADIO

IC-F21GM Perfect for sportsmen, families, clubs, hobbies, or when you need more power than an FRS radio offers. Choose from 15 higher power GMRS channels, 7 channels shared with FRS. Communicate with any FRS radio on these channels. All channels are pre-programmed internally allowing out-of-box operation, only a simple license required. Apply on the FCC web site, complete instructions included. 462.550-467.725MHz (UHF) coverage • 4/2/1W (adjustable) • CTCSS/DTCS signaling for more privacy • Scanning and "Tone Find" seek active channels • Meets various MIL-STD requirements • Drop-in battery charger included • 2.1"w x 5"h x 1.5"d, 10.6 oz..... **$149.99**

NEW

Cobra®

$20 Factory Rebate!

FRS/GMRS RADIO

PR-950-2DX **MicroTalk** Pair of FRS/GMRS two-way radios operating on UHF/FM for clear reception up to 5 miles. 500 mW output for FRS, 2W for GMRS. • 22 channels • 38 privacy codes • 10 channel memory • 10 call tones • Multi-function scanning • *VibrAlert™* for silent incoming calls • VOX for hands-free use • Licensing information for GMRS use included • Requires 4 AAA batteries (not included) • 4.5"h x 2.5"w x 1.25"d, 5.4 oz.... pair **$99.99**

maxon

49MHz FM PERSONAL COMMUNICATORS

Low power, 1/4 mile average range • Dual conversion super-heterodyne receiver provides crisp, clear transmission • Use for group communications • Push-to-talk or voice activated - talk-to-transmit • No license required • Channels: 49.830MHz, 49.845MHz, 49.890MHz, 49.860MHz, 49.875 MHz

MX-49SX A single channel unit including a lightweight adjustable headset with retractable whip antenna and boom microphone with windscreen. Uses only one of first 3 channels (see above) • LED power indicator • battery charger jack • Range up to 1/4-mile • Uses two "AA" alkalines or rechargeable nicads • 5"w x 2.5 "h x 1"d, 9 oz..... **$29.99**

MX-49FX The unique earphone and mic pick up voice vibrations from the ear canal for transmit audio and also provide received audio • Will not interfere with helmets • 5 selectable channels • Built-in antenna gives up to 1/8-mile range • Remote PTT button and channel selector. Uses 3 "AA" batteries. 5.5"w x 3"h x 1"d 6 oz..... **$49.99**

MX-49HX Great for motorcycling, snow mobiling, etc. The helmet adaptable headset has a whip antenna and boom microphone with windscreen • 5 selectable channels • VOX or PTT with on-unit or remote switch • Front mounted off/on, volume, VOX sensitivity and channel selector • Jacks for optional passenger intercom headset • Uses three "AA" batteries • 5.5 "w x 3"h x 1"d, 6.5 oz.. **$49.99**

HANDHELD SCANNERS

BC-60XLT-1 Handheld Scanner *(left)* 30 programmable channels, 10 bands – cover 29-512MHz • LCD channel display • Programmable chain search • One-touch weather • Lockout • Memory backup • Keypad lock • Scan delay • Manual channel access • Track tuning • Keypad lock • Uses four AA alkaline or nicad rechargable batteries, or operates on AC with included 110V AC adapter • 2.625" w x 6.75"h x 1.5"d, 10.5 oz **$89.99**

BC-80XLT Handheld Scanner Looks similar to 60XLT • 50 programmable channels, 11 bands, 5 banks - cover 29-956MHz (cell blocked) • 5 priority channels • On-touch weather • Manual channel access • Bands search • Full frequency LCD display • Uses four AA alkaline or nicad rechargeable batteries, or operates on AC with included AC adapter • 2.625"w x 6.75"h x 1.5"d, 10.5 oz..... **$119.99**

BC-245XLT TrunkTracker II Handheld Scanner *(middle right)* 300 programmable channels, 12 bands including Aircraft and 800MHz (covers: 29–956 MHz - cellular blocked) • Trunk tracking technology: scan and search, lock out, delay, and 10 trunk scan list • Programmable search • Memory backup • Manual channel access • Pre-programmed service search • Channel lockout • 10 priority channels • Rechargeable NiCad battery and wall charger • 2.5 "w x 6"h x 1.75"d, 12.5 oz..... **$219.99**

SC-180B Sportcat *(middle left)* Hear car and pit crews at auto races, the cockpit at air shows, or use it as a traditional scanner to keep up with emergency personnel. 100 programmable channels, 12 bands/800 MHz (cell blocked)/Air, 10 banks • 10 priority channels • Twin TurboScan™ and search • Manual channel access • Instant weather • Full frequency, alpha-numeric LCD • Rechargeable NiCad and wall charger • Includes sports frequency guide, AC adapter, rubber antenna, belt clip and earphone • 2.5"w x 1.625"d x 6"h, 11 oz. **$169.99**

SC-200 Sportcat Same as above with 200 channels, cloning capability and CTCSS..... **$199.99**

BC-250D Digital-Capable* Handheld Scanner *(right)* Continuous coverage from 25MHz to 1.3GHz (cell blocked) • AM/FM/NFM/WFM modes • TrunkTracker III - EDACS, Motorola, E.F. Johnson • 30 trunking channel indicator annunciators • 1000 channels, 10 banks • 12 service searches • CTCSS/DCS • S.A.M.E. weather alert • Alpha tagging (bank channel and search range) • PC programming and control • Holographic, backlit display • Backlit keypad • 2.5"w x 6.9"h x 1.75"d, 14 oz..... **$369.99**

**Requires installation of BCI25D card ($299.99) in order to monitor APCO P-25 digital systems.*

Service Questions?
414-358-4087
Milwaukee, WI

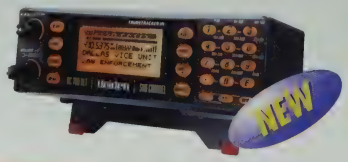
BEARCAT SCANNERS

BC-244CLT 30 programmable channels, 10 bands • Full freq. LCD • Channel lockout • Mem. back-up • Manual channel access • Alarm clock • One-touch weather • 8"w x 5.5"d x 3"h, 1 lb. 6 oz..... **$99.99**

BC-248CLT AM/FM alarm clock radio with 20 presets • 50 programmable channels, 10 bands • One-touch weather • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual access • Delay • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 6 oz **$109.99**

BC-278CLT AM/FM Alarm Clock Radio with 20 presets • 100 channels, 12 bands • 800MHz coverage (cellular blocked) • One-touch weather with S.A.M.E. weather alert • Full frequency display • Auto squelch • Lockout • Memory back-up • Manual channel access • Programmable delay • Data skip key • Programmable search • Programmable service search • 5 priority channels • 10"w x 5.5"d x 3"h, 1 lb. 7 oz..... **$169.99**

BC-350A 50 channel, 11 band mobile/base scanner with Aircraft and instant weather • Super Turboscan™ @ 100 channels/sec. • Full frequency LCD display • Private channels, 20 programmable and scannable • Police channels • 10 programmable fire and emergency channels • Marine channels • Band search • Lockout channels • Mounting bracket, AC adapter, telescoping antenna cigarette and DC power cord • 5.25" x 6.8" x 1.625", 1.6 lb **$109.99**



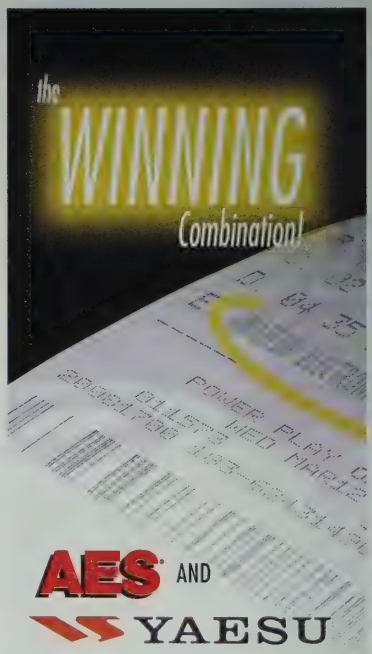
BC-780XLT Continuous Band Programmable Scanning Radio AM/FM/WFM • 500 channels (10 priority), 10 banks • Covers 25-511MHz, 806MHz-1.3GHz (cell blocked) • Preprogrammed service searches • Full frequency, backlit LCD • TrunkTrackerIII • S.A.M.E. weather alert • SmartScanner™ • Clone feature • Alpha tagging • CTCSS/DCS • PC control • Base or mobile • Beep alert • Record every channel or every ID programmed (up to 1000 IDs) • 7"w x 6.56"d x 2.375"h, 41.96 oz..... **$299.99**

BC-785D Digital-Capable* Base/Mobile Scanner (looks similar to above) Continuous band coverage from 25MHz-1.3GHz (cell blocked) • TrunkTracker III - EDACS, Motorola, E.F. Johnson • S.A.M.E. • Full frequency LCD • 1000 channels, 10 banks • AM/FM/WFM modes • 12 service searches • Alpha tagging • Alphanumeric • CTCSS/DCS • Control-channel-only mode • Clone feature • PC programming & control • Record functions • Backlit controls • 7"w x 6.5"h x 2.375"d, 14.9 oz..... **$369.99**

**Requires installation of BCI25D card ($299.99) in order to monitor APCO P-25 digital systems.*

BC-895XLT "Trunk-Tracker" • 300 channels, 12 bands including Aircraft and 800 MHz, 10 banks • VFO control – covers 29-511, 806-956MHz (cell blocked) • 10 priority channels • TurboScan™ • One-touch weather with weather alert • Manual channel access • Built-in CTCSS • Trunk search • Scan lockout/delay • RS-232C port • Signal strength meter • Auxiliary tape output • Automatic store • 30 trunking channel indicator annunciators • 3-day memory backup • Programmable search • Lockout • 10.875"w x 3.625"h x 7.5"d, 3.5 lbs..... **$199.99**

BCT-7 Bear Tracker 800 Pre-programmed with frequencies for highway patrol, D.O.T, local and county police, news, fire, aircraft and CB services. Selectable by state (except HI) • 12 bands • 100 channels • Highway patrol priority alert • Data skip • Weather scan • 13.8V DC or 110V AC • Mobile mount • 5"w x 7"d x 1.375"h, 1 lb 11oz . **$169.99**



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150 kHz – 1.3 GHz* • AM, FM, WFM • 1250 Alphanumeric Memories • CTCSS/DTCS Decode • Weather Alert • Dynamic Memory Scan (DMS) • Preprogrammed TV & Shortwave • Weather Resistant • 2 AA Ni-Cds • PC Programmable

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IC-R10

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ICOM

R-10-05 General Coverage Pocket Scanning Receiver 500kHz-1300MHz (cell blocked). AM, SSB, FM wide or FM narrow modes. Programmable tuning steps. On-screen spectrum display, 1000 non-volatile memory channels in 18 banks of 50 channels. Scan by bank, mode, or program. Alpha-numeric characters can be entered to identify channels and banks. Noise blanker and auto noise limiter. Auto frequency control (AFC) • Edge-lit display • 24-hr clock with timer • PC programming capability • Adjustable LCD contrast • Signal indicator • Power-saver • NiCads and wall charger (also will use alkaline or DC) • 2.3"w x 5.1"h x 1.2"d, 10.9 oz..... **CALL**

R-2-06 Communications Receiver Wide coverage from 0.495-1309.995MHz (cell blocked) in 9 frequency bands with 400 memories in 8 banks of 50 channels. FM, WFM and AM modes. • Quick, easy band switching • Tone squelch (CTCSS decode) • Offset monitor capability • Built-in attenuator • PC programmable • Data cloning • Multiple scan functions • Backlit LCD with timer • Priority watch with beep alert • Channel indication • Automatic squelch • Up/down keys for AF level • Auto-power-off • MIL-SPEC 810 C/D/E, weather resistant • Includes 2 NiCads, charger, antenna, handstrap and belt clip • 2.875"h x 3.375"w x 1.0625"d, 6 oz..... Closeout **$99.99**

R-3-26 Communications Receiver Provides wide-band capability from 0.5–2450MHz (cell blocked). Features 2" TFT color display which may be changed to mono. Receive favorite TV shows, scan for wireless cameras like those in race cars. Use with a wireless camera to monitor activities. Display to a large monitor or recording device with A/V output terminal. Signal strength and band scope functions assist in finding the action. Includes 450 memories with alphanumerics, CTCSS, attenuator, and more. A long lasting Li-ion battery offers easy charging, lightweight performance, and up to 27 hours of continual use on the mono LCD • PC programming capability • 2.4"w x 4.72"h x 1.28"d, 10.6 oz ..... **CALL**

R-5-06 Super Wideband Handheld Receiver Covers 495kHz to 1309.995MHz (cell blocked), AM, FM, WFM modes. Preprogrammed TV and shortwave memories. Listen to AM/FM broadcast radio stations, police, fire, military, aircraft, various amateur bands, and more. Crisp, clear audio. Large, backlit LCD shows frequency, operating and battery status, signal strength and alphanumeric naming for 1250 memories (including 200 autowrite scan memories and 25 scan edge pairs). • DMS • CTCSS/DTCS decoder • Internal bar antenna • Weather alert • PC programmable and cloning • Weather resistant • Rechargeable NiCad and external DC jack. 2.25"w x 3.4"h x 1"d, 6 oz..... **CALL**

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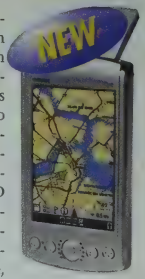
GARMIN

The colorful Gekos are the smallest and lightest waterproof GPS units available. Both the Geko 101 and 201 are inexpensive and offer a sleek, thin design with simple operation.

GEKO-101 Sun-yellow case, economical. Perfect for navigational novices. Features such as one-touch waypoint marking make it a snap to use. Easily maneuver from one waypoint to the next using its 250-waypoint storage capacity with symbols, and trace along a route with PanTrack™. • Easy operation: five buttons for one-hand use • High-contrast display – 64 x 100 pixels with LED backlighting • 12-hour battery life on 2 AAA's • 250/0 waypoint/route storage • Automatic 3,000 trackpoint storage with PanTrack™ and TracBack® • Submersible for 30 min. at one meter • 1.9"w x 3.9"h x .96"d, 3.1 oz **$99.99**

GEKO-201 Distinctive canopy-green case, the powerful 201 allows more waypoint and route storage, as well as available PC and external power connectivity. It also offers built-in WAAS capability. Has a user-configurable trip computer and 10,000 trackpoints, as well as PanTrack™ and TracBack®. • 10 feet accuracy or less with WAAS • Five buttons for easy one-hand operation • 64 x 100 pixel, high contrast display • 12-hour battery life on 2 AAA's • 500/20 x 125 waypoint/route storage • Automatic 10 track storage • PC connectivity and external power ports • Submersible for 30 min. at one meter • Includes four interactive, outdoor games • 3.9"h x 1.9"w x .96"d, 3.1 oz..... **$139.99**



IQUE-3600 PDA With Integrated GPS The power of Palm OS integrated Que 5, Garmin GPS and mapping software technologies. Look up appointments or contacts and get routing to their location with voice-guidance! New ARM processor enhances battery life, screen redraw, graphics, and audio • SD expansion slot for storage • Flip-up, integrated GPS patch antenna for optimal reception • Built-in speaker for voice-guidance, MP-3 player, and memo playback • Voice recorder for memos and notes • Rechargeable internal li-ion battery (via Hot-Sync® cradle, AC adapter or USB) • 32 MB memory for data and compatible software • Protective soft cover • Metal stylus • Install/application CD • Choice of Map-Source™ configuration with unlock certificate for Americas or Atlantic • High resolution, color, 2.16"w x 3.24"h display • 2.8"w x 5"h x 0.8"d..... **$549.99**

GARMIN

GPS-12XL Personal Navigator™ for Extreme Outdoor Enthusiasts 12-channel receiver with external antenna for fast, accurate position fixes in tough conditions like tree canopy and urban obstructions. Rugged, compact case ideal for boaters, hunters or hikers. 500 user waypoints with alphanumeric name and user comments. 20 reversible routes of up to 30 waypoints each. TracBack™ navigation turns a track log into a route back home. Nine waypoint alarms. Over 1000 track log points, position averaging, emergency erase, and cloning features. Up to 12 hours operation on 4 "AA's"..... **$219.99**

GPS-12CX Personal Navigator™ with Color Display for the Outdoor Enthusiast Nine built-in languages including French, German, Spanish and Portuguese. 2,048 track log points. Selectable position formats including MGRS and user-definable grid. Provides heading, track, sunrise and sunset, ETE, ETA and other calculations. User selectable audible settings, TracBack™. Up to 36 hours of operation..... Closeout **$189.99**

NAVTALK™ Personal Navigator™/Cellular Mobile Combines GPS with cellular technology into one handheld unit. During travel, location is displayed in real time on a built-in map. Send your exact position and have it displayed on another NavTalk unit. **Cell phone:** Customized phone book • One-touch speed dial • Built-in pager • One-touch emergency dial (subscription required) **GPS:** Shows interstates with exit info, cities, airports, etc. Plug into a PC and download from optional MapSource™ CDs [U.S. Roads and Recreation (010-10215-00) or World Map (010-10215-01 **Special Order**)] . Closeout **$249.99**

RINO-120 GPS-Enabled Handheld for FRS and high-performance GMRS • Two-way communications up to 2 miles using FRS (up to 5 miles, using GMRS) • 0.5/1W (FRS/GMRS) • 14 channels, 38 squelch codes, and VOX • Voice scrambler • Vibration mode for "silent" calls • 12-channel, GPS receiver provides position accuracy of less than 10' when enabled • Peer-to-Peer positioning to transmit GPS location, showing distance and bearing • Navigation features include extensive waypoint storage, TracBack, multiple position formats and built-in trip computer • Basemap of the Americas (major cities, highways, thoroughfares, rivers, lakes, coastlines, borders, and railways) 8MB internal memory accommodates downloadable cartography from GARMIN's MapSource CD-ROMs • Uses 3 "AA's" • 8.5 oz..... **$249.99**

GPS-72 Low-cost solution for land/marine navigation providing precise positioning using WAAS data. • Built-in quad helix antenna • High-contrast, gray-scale display ("large number" option) • Backlit display/keypad • Permanent data storage • Water resistant • 500 name and graphic waypoints, 50 reversible routes • Lat/Lon, UTM, Loran TDs, Maidenhead, MGRS, and user grid formats • Arrival, off-course, clock and proximity alarms • 1 MB memory for MapSource™ data • Trip computer with odometer, stopped time, moving/overall average, total time, max. speed..... **$159.99**

eMAP DELUXE Electronic Map 12-parallel-channel GPS and internal patch antenna with basemap showing cities, interstates, exits, etc. • Large, backlit screen • Zoom keys with rockerpad for one-hand operation • Trip computer provides odometer, stopped/moving/total time, moving/overall average and max. speed • Map page with direction, speed, time, distance/time to go and trip distance • Save up to 500 sites • 2000 track log points • Up to 12 hours on 2 AA's • Includes interface cable, 8MB data card, wrist strap and guide • 2.4" x 5.5" x 0.8", 6.7 oz..... **$209.99**

eTREX *(left)* 12-parallel-channel GPS receiver and internal patch antenna packaged in a waterproof case. Side operating buttons for larger display. Simple menus and logical operations make position marking easy. • Compass or map navigation • Zoom keys • 500 user waypoints with name and graphic • 1 route with 50 waypoints • Resettable trip computer • Auto track log, 10 saved tracks to retrace a path • Up to 22 hours of use with 2 AA alkalines • 4.4"h x 2"w x 1.2"d, 5.3 oz **$119.99**

eTREX SUMMIT™ Hiking Companion *(right)* Similar to the eTrex but includes a barometric altimeter and electronic compass..... **$249.99**

GPS-III PLUS Personal Navigator™ Dash mount. Road maps without plug-in cartridges. Selectable vertical or horizontal display. Dedicated keys for zooming from 0.2–360 miles, diagonal panning, auto start/stop timer, average/max. speed recordings. Rocker keypad, backlit LCD, full featured moving map plotting, user selectable navigation screens for compass or graphic highway guidance. Download data from MapSource CDs **$299.99**

STREET PILOT Dashboard Mount Built-in map of the Americas with state and country boundaries, lakes, rivers, cities, state/interstate highways and some local thoroughfares. Accepts Garmin cartridges showing residential streets, addresses and points of interest. Large high resolution display • 3-level, amber, backlit screen and keypad • Auto turn-by-turn guidance with manual route selections • Auto waypoint and route naming • Storage for 100 waypoints • Trip planning • Zoom key • Dashboard screen showing current trip segment, distance, direction • Clock and arrival alarms. Up to 16 hours on 6 AA's..... Closeout **$399.99**

ST PILOT III DL StreetPilot III Deluxe *(right)* Portable GPS with auto routing and voice prompts alerting to upcoming turns. Shows position on a detailed color map. Automatically calculates a route from current location and displays turn-by-turn directions. Included MapSource™ City Navigator™ software provides more map detail, and, with downloaded detail, look up points of interest and view address and phone information. Portable for use in multiple vehicles. Also includes: StreetPilot III satellite navigation system • Dash mount • 12V adapter cable with speaker • 128MB data card • USB programmer for faster map downloads ... **$999.99**

GPS-V DELUXE North American turn-by-turn navigation with auto-routing for the shortest, fastest routes. Display prompts and audible alerts for turns, upcoming turns, course deviation, and distance to destination. Built-in, routable basemap provides detail for interstates, interstate exits (USA only), highways, North American rivers and lakes, plus commonly used metro streets. Maps from MapSource MetroGuide gives guidance to residential street-level detail. Look up services and points of interest. View address, phone number and map location. 500 user waypoints • 20 reversible routes • Trip computer with odometer, stopped time, moving/overall average or total time, maximum speed • Auto track log, 10 saved tracks • Operates on 4 AA batteries up to 25 hours • Permanent data storage • Water-resistant • Includes auto mount, cigarette lighter adapter, PC cable and City Select software with an all-unlock (no internet access required) • 2.32"h x 5.0"l x 1.62"w, 9 oz..... **$499.99**

Software compatible with some Magellan and Garmin GPS units can be found under "Multi Media."

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The Meridian™ – Magellan's new premier line of rugged GPS handheld receivers, designed with serious navigators in mind.

MERIDIAN™ GPS The most affordable of the Meridian line, but low price doesn't mean sacrificing features. Expanded memory capacity for downloading maps with optional SD cards in 8, 16, 32 and 64MB • Large backlit display for easy map viewing • Rugged rubber armoring and high impact plastic for use in the harshest environments • Supports several languages including: English, French, German, Swedish, Finnish, Spanish, Italian, Portuguese, Dutch • Save Track-to-Route • Satellite status display • Built-in help • North-Finder with sun/moon positions • Sunrise/set calculator • 2MB database of U.S. cities, interstate/ state highways, political boundaries, major waterways and airports • Store 20 routes, 500 waypoints and 2,000 track-points • Vertical profile of track* • Horizontal profile* • Address Search ** ..... Closeout **$199.99**

MERIDIAN™ GOLD *(middle)* All features of the Meri-dian GPS, with ad-ditional 16MB database of U.S. cities, highways, political boundaries, major waterways and airports **$299.99**

MERIDIAN™ PLAT *(right)* **Meri-dian™ Platinum** Possesses all features of the Meridian Gold and adds electronic compass and barometer that tracks barometric pressure like a weather station **$349.99**

MERIDIAN COL **Meridian Color** is the top of the Magellan® Meridian line of superior, rugged GPS receivers. Shows you where you are on the industry's first full-color screen in a handheld GPS. Plus, it comes preprogrammed with an extensive 16 MB map, including highways, major roads, parks, navaids, waterways, airports and more. • New, vivid color, 120 x 160 pixel display • Superior tracking even in dense foliage and urban environments • 16 MBs of built-in North American street maps and navaids • Rugged design with high-impact housing of wrap-around rubber – it floats! • Infinitely expandable via industry-standard Secure Digital memory cards • Up to 13 hours of continuous battery life • Use optional MapSend® CDs to map out fishing, hunting or business trips • Includes 2 AA batteries, PC cable, lanyard • 6.5"h x 2.9"w x 1.2"d, 8.5 oz **$499.99**

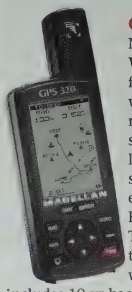
** Requires MapSend™ Topo for United States*
*** Requires any version of MapSend Software*

Software compatible with some Magellan and Garmin GPS units can be found under "Multi Media."

Each Magellan GPS includes a powerful 12 parallel channel receiver, wraparound rubber armoring, "EZstart" use, auto averaging and a water-proofing.

MAP-330 **GPS** Designed for the avid outdoorsman and mobile professional who demand supreme performance and functionality. The built-in 8MB base map includes worldwide political boundaries and U.S. cities, highways, major roads, national parks, waterways, and railways. And, with 8MB of up-loadable memory, plan detailed, cross-country routes without having to visit a PC every other state. View navigation information on any of four graphic screens presented on a large, high-resolution display. With a powerful 12-parallel channel receiver and quadrifilar antenna, the MAP-330 provides outstanding lock-on tracking in a vehicle, on foot, etc ..... Closeout **$199.99**

GPS-310 Affordable GPS, staying locked onto GPS satellites in the harshest environments. This rugged, waterproof unit will travel anywhere in the world and back. Ready out of the box and incredibly easy to use. Features three user-friendly navigation screens. Saves 100 waypoints and 1 route with up to 10 reversible legs. Compatible with PC mapping software. Backlit display and it floats! DGPS ready. Up to 20 hours of use on 2 AA's. 2"w x 6.25"h x 1.25"d, 6.8 oz..... Closeout **$99.99**



GPS-320 **GPS Navigator with Nautical Navaid Data Base and Worldwide Cities** A fisherman's full-featured personal navigator with a large database of cities and regional marine aids. Memory to store up to 500 waypoints and/or landmarks. Four navigation screens show direction, path traveled, and distance. Also features: EZstart use, 1200-point Smart-Track, BackTrack, best fish/game time, sunrise/ set and map software compatibility. Uses 2 AA's, includes 10-yr back-up battery.. Closeout **$149.99**

All SporTracks feature 12-parallel-channel, WAAS receiver • Satellite tracking with advanced Quadrfilar Helix antenna • 2.3" x 1.4" display • Backlit screen and keypad • 500 waypoints • 20 routes • 2000 track points • 76 datums • Indefinite data back-up, stored in non-volatile flash memory • Multi-language • Impact resistant, waterproof case

SPORTRAK Sporty, GPS system with worldwide database of major cities. Includes worldwide city points-of-interest. • 1 MB built-in memory for downloading additional points • 9 screens: Status, Position, Nav 1, Compass, Nav 2, Plot, Road, Speed, Time • Alarms for proximity, arrival, anchor, cross track, error and GPS • Satellite status • Northfinder with sun and moon positions • Sunrise/set and best fish/game calculators • Up to 14 hours use on 2 AA's • 5.6"h x 2.2"w x 1.3"d, 6.1 oz **$169.99**

SPORTRAK MAP A sporty, pocket-size, GPS system that includes mapping • 2MB database with interstate and state highways, parks, waterways, airports and cities • 4MB memory for download of additional maps • 7 user-configurable screens: Map, Compass, Large Data, Position, Road, Speedometer, Trip Compass • Full 3-D topo support • Alarms for proximity, arrival, anchor, XTE and GPS • Save-track-to-route • Satellite status display • Built-in help • Northfinder with sun/moon positions • Sunrise/set calculator • Best fish/game calculator • Horizontal profile and address search • Includes PC cable • Uses 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz **$199.99**

SPORTRAK PRO All the features needed in a pocket-sized GPS with 32MB of memory • 9MB database (interstate and state highways, major roads, parks, waterways, airports, cities, and marine navigation aids such as buoys, marinas, lighthouses, and wrecks) • 23MB memory for download of additional maps • Full 3-D topo support • 7 user-configurable screens: Map, Compass, Large Data, Position, Road, Speedometer and Trip Compass • Alarms for proximity, arrival, and anchor • Save-track-to-route • Satellite status display • Built-in help • Northfinder with sun/moon positions • Sunrise/sunset calculator • Best fish/game calculator • Horizontal profile and address search • Includes PC cable • Uses 2 AA batteries for up to 14 hours • 5.6"h x 2.2"w x 1.3"d, 6.1 oz..... **$269.99**

SPORTRAK COL **SportTrak Color** Vibrant, high resolution, color screen plus enhanced features in a handheld GPS with 32 MB built-in memory. • 9MB North American basemap (roads, waterways, parks, airports, marine navaids, buoys, etc.) • 23MB memory for additional downloads • Accuracy in all orientations – 3-axis electronic compass orients you no matter how you hold it • Built-in barometer • Waterproof and built tough • Includes 2 AA batteries, PC cable, lanyard • Easily fits in a pocket, 5.6"h x 2.2"w x 1.2"d, 6.8 oz..... **$449.99**

ICOM

GP-270ML **Fixed Mount Marine GPS Receiver** Large LCD display • 12 channels • Full key pad • 500 user waypoints with names and descriptions • Marine database with 16,000 pre-programmed waypoints - all US buoys and lights • Built-in world map • 24-hour tide prediction for the entire world • Sun and moon phase predictions and set times for any spot on Earth • Track plotter • 30 reversible routes • Includes six languages • DGPS ready • Operates with LORAN TDs • 3.1" x 9.9" x 5.8", 3.5 lbs... **$399.99**

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PE-319 Pedometer with Personal Security Stay at ease while exercising away at home. This pedometer features a 120dB panic alarm for personal security and emergency. Displays elapsed workout time, distance walked and a 12/24 hour clock on its backlit 2-line LCD display . **$19.99**

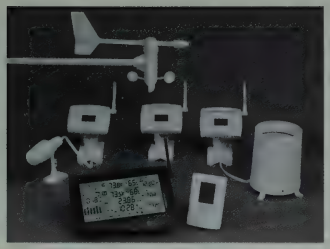
ALL HAZARDS WEATHER RADIOS

WR-102 Portable S.A.M.E. Weather Radio A handheld all-hazards weather radio that receives and displays alerts, watches and warnings that apply only to a local area using S.A.M.E. technology • Monitors 24-hour weather forecasts and alerts • Scans all NOAA channels • Monitors U.S. emergency alert system with auto activation • Dual LED power/alert indicator • Digital clock land alarm with snooze **$49.99**

WR-196T Desktop S.A.M.E. Weather Radio AM/FM radio with ten memory presets • Digital tuning, including seven NOAA weather channels • Dual LCD display for clock and dot-matrix text message • Automatic audible and visual alert activation plus blinking LED warning • Standby mode to mute speaker • Digital clock, calender, alarm, and 5–120 min. sleep timer • Operates from 3 AA's or AC adapter • 6.75"h x 5.25"w x 0.875"d, 0.75 lb.... **$69.99**

WEATHER STATIONS

RGR-122 Long Range Rain Gauge Self-emptying and provides cumulative and daily precipitation totals for up to nine days. Its wireless, long range capability allows the collector to be placed up to 300 ft. from the main unit. The collection data is broadcast at 433MHz to the indoor base unit and displayed on an attractive easy-view 3.5"h x 1.5"d x 2.5"w LCD console. Includes indoor temp. gauge. Requires 2 "AA" batteries in both collector and main units **$59.99**



WMR-968 Cable Free™ Weather Station Innovative wireless outdoor sensors with 300 ft. range operates on solar power for simple installation and sophisticated ease. Track and record over 20 separate weather conditions by a press of the touch-sensitive jumbo LCD display screen **$399.99**

WM-918 Complete Weather Monitoring Station Monitors over 20 weather and environmental conditions. Sensor range up to 40'. Self-dumping electronic rain gauge, outdoor temp. and humidity sensor, anemometer (wind speed/direction), and all wiring. Desktop control panel displays clock, calendar, alarm, and weather. Also features weather forecasting displaying local 12/24-hour forecasts. Uses 8 AAA batteries, AC adapter included. 7"l x 4.25"w x 1.5"h, 14.8 oz **$229.99**

WMR-112A CableFree™ Weather Station Uses innovative, wireless, outdoor sensors for simple installation. Operates on 433MHz at a 300' range from remote sensors. • Measures outdoor temperature (-4°F to 140°F) and relative humidity (25%–95%) • Measures indoor temperature (0°F to 122°F), relative humidity (25%–95%) and barometric pressure (17.27 to 31.02 in.Hg) • Indoor touch-screen console, wall mount or desktop • AC adapter • Requires 12 "AAA" and 6 "AA" batteries (not included) • 7.75"h x 3.5"w x 1.4"d **$199.99**

Look For This NEW & Check Out AES' Latest Additions.

OTHER WEATHER PRODUCTS

RM-116E Exactset™ Radio Controlled Clock *(left)* The most accurate of alarm clocks. Sets itself automatically by receiving time signals from the U.S. Atomic Clock. Features blue HiGlo™ backlight LCD, snooze, day/month/seconds and automatic adjustment for Daylight Savings Time **$29.99**

BA-812E Weather Clock *(right)* Unique bedside or desktop alarm clock features auto weather forecasting technology with easy-to-understand graphical weather icons. Displays indoor temperature and features a HiGlo™ backlit LCD..... Closeout **$19.99**

EMR-812A Cable Free™ Thermometer The latest in radio frequency technology! This Cable Free™ thermometer with jumbo display shows you the indoor temperature and the temperature from up to three remote locations. Includes one easy-to-install remote temperature sensor that can be placed up to 90 feet from the main unit – with no wires to install anywhere! • 433MHz operation • High/low memory and temperature alarms • Choose and change between Celsius and Fahrenheit • Includes one wireless sensor . **$29.99**

THR-138 Extra Sensor **$24.99**

Emerson

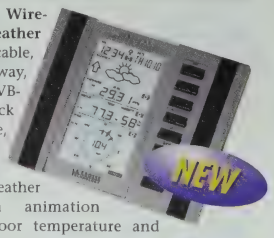
ESR-220 Solar/Dynamo-Powered Radio and Flashlight Built-in NiCad recharges using the solar panel or dynamo generator. Install 3 AA batteries (back-up only). Also power and recharge using optional AC adapter • Bright beam flashlight with two modes: steady or flashing • Warning siren feature, use alone or with flashing light • Built-in antenna • 8.5" x 3.5" **$29.99**

PDC-803 Electronic LCD Digital Compass Easy-to read LCD screen displays heading as a cardinal point (e.g. N, NW, SE) with numeric digits in degrees (e.g. 17°) plus a directional compass arrow • Backlight for night use • One touch calibration corrects for local magnetic interference • Mounts on dashboard with velcro • 3 AAA batteries included • 1.875"w x 3.625"h x 2.75"d, 4 oz **$29.99**

WEATHER STATIONS

WS-2010 Professional Wireless Weather Station Indoor temperature (32°F to 158°F), humidity, and barometric pressure (from remote) • Outdoor temperature and humidity (wireless, solar powered) • Min/maximum data for all readings with time and date recorded • Air pressure with 24-hour bar chart history • Forecast icon and pressure trend indicator • Wireless rain gauge (solar powered) tracks rainfall amount for last hour, last 24 hours, total • Wireless wind-gauge (solar powered) tracks speed and direction - up to 330' range • Includes wind-gauge, rainfall sensor, indoor temperature/humidity sensor, and outdoor temperature/humidity sensor • Receiver and sensors require alkalines (not included) • Free standing or wall mount • 8.5"w x 1.25"d x 6.5"h (receiver) **$389.99**

WS-2010-13 PC Interface for WS-2010 Wireless Weather Station Connects to serial port • Receives and stores all data • Included software calls in data and removes from interface, storing in a data file • Without computer connected, can act as a data logger, storing several days collected data • Selected data can be exported as an ASCII file for use in other WIN 95/98 programs (Excel, etc.) • Generate graphs, charts, and data lists • Operates on 2 AA batteries (not included)..... **$129.99**



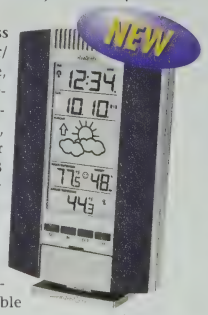
WS-2310 Wireless/Wired Weather Center Direct cable, or up to 80' away, wireless • WWVB-controlled clock shows day, date, minute, second, alarm, and time zone • Weather forecast with animation • Indoor/outdoor temperature and humidity, wind chill, dew point, rainfall (24 hrs, 1 hr, and total) • Wind speed (m/s, knots, bft, km/h, and mph) and direction with trend • Barometric pressure • Alarms: time, storm warning, weather (air pressure, temperature, humidity, rainfall, wind speed, and wind direction) • Stores up to 175 sets of weather data in memory for weather analysis and graphical display on PC (software CD-ROM and cables included) • Uses 3 AA batteries (not included) or included AC adapter..... **$249.99**

Secure
www.aesham.com

WS-8015U Deluxe Sun/Moon Wireless Weather Station Calculates sun/moon rise and set and moon phase based on choice of 250 North American cities • Indoor and remote temperature and humidity • Barometric pressure with 30-hour history chart • Forecast icon, based on changing air pressure, about 75% accurate for 12-20 hours • WWVB-controlled 12/24-hour time and date • Temperature alarm for remote temperatures • Storm warning indicator • Receiver and remote require alkaline batteries (not included) • One remote sensor included, can receive as many as three remotes, up to 80 ft. range • Wall mount or free-standing utilizing fold-out stand **$159.99**

WS-9016U Sun/Moon Wireless Weather Station WWVB-controlled time with manual settings • Calendar display, date, time zone • Alarm function with adjustable snooze • Sun/moon data for 45 U.S. locations • Weather tendency and air pressure trend • Indoor temperature and humidity display • Min./maximum outdoor temperature record with time • Receiver and remote require alkaline batteries (not included) • 4"w x 1.4"d x 6.75"h..... **$79.99**

WS-7038UF Wireless Rain Gauge Receives rain data from included, remote, self-emptying, rainfall gauge located up to 80' away • Shows rainfall for past hour, 24 hours or last rain period until manually reset • Rainfall history – view last 7 days, weeks, or months – scroll period by period on graph • Rain alarm function • Wall mount or free-standing with removable stand • 12/24-hour time mode, manual time set • Receiver/remote use 2 AA alkalines each (not included) • 3.5"w x .75"d x 4.2"h (receiver) **$59.99**



WS-7075UF Wireless Forecast Station Indoor/remote temperature, indoor humidity • Forecast icon, based on changing air pressure, about 75% accurate for 12-20 hours • WWVB controlled 12/24-hour time, dual time alarms with snooze • Receiver and remote require alkaline batteries (not included) • Wall mount or free-standing with removable stand • 4.5"w x 1.0"d x 7.0"h • 80' range .. **$59.99**

WS-7013U Wireless Temperature Station Indoor/remote temperature with minimum and maximum memory (time recording for remote temperature) • 12 or 24-hour mode, manual set time • Wall mount or free-standing (removable) • Receiver and remote use 2 AA alkalines each (not included) • Up to 80 foot range • 2.75"w x 4.25"h x 1.0"d (receiver) **$29.99**

OTHER WEATHER PRODUCTS

WT-5431 Projection Alarm with Remote Temperature • 12 or 24-hour time, dual alarm with snooze – WWVB control, month/day, date • Time zones, GMT to 12 hours • Indoor and remote temperature • Projects from 3-10 feet onto wall or ceiling with adjustable rotation, intensity; auto focus • Backlit display when a button is pressed • Wall transformer (included) or 3 AA alkalines; remote requires 2 AAA's (not included) • 5.25"w x 3.5"h x 1.25"d..... **$49.99**

IR-101 Infra-Scan Infrared Thermometer Measure temperature in a fraction of a second without touching the object being measured. Useful for contact-free measurement of stationary and moving objects, finding cold spots in a home, checking food stuffs, heating and air conditioning, hot components (machinery, engines, etc.) • Single key operation • Back-lit LCD • Temperature range: -4°F to +572°F • Uses 4 LR-44 button cells (included) • 2.2"w x 0.9"d x 4"h **$49.99**

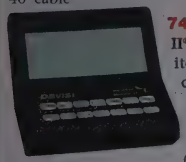
WX500 Receives all 7 NOAA weather channels and provides multiple weather alerts through text messages, alert tones, and actual broadcasts. S.A.M.E. (Specific Area Message Encoding) alert means that during a NOAA weather emergency or emergency alert, a code for a specific location is broadcast that will alert the user to severe conditions in the immediate area. A 9-volt battery acts as back-up power in the event of a power failure. Alarm clock feature uses the large LCD readout, which has a selectable backlit control for night visibility. DC lighter adapter cord and 120V AC adapter included. 5"w x 5"w x 1.875"d, 19 oz..... Closeout **$49.99**

DAVIS

WEATHER STATIONS

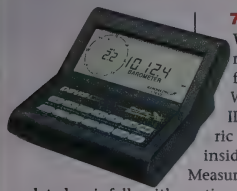
Sophisticated, professional quality for home, business, or scientific use. Add WeatherLink for detailed, long-term analysis using a PC. Standard weather stations assemble quick and easy with plug-in cable connections using modular RJ connectors. Cables are connected to the console through a junction box with 8' cable. Console includes AC power adapter with battery backup (not included).

All stations include • Time in 12/24-hour format and date • U.S. and metric measure • Highs and lows • Calibration of some functions for increased accuracy under difficult conditions • Sequential scan and display of readings • Alarms for selected functions • Console with LCD and reversible base for use on desk, shelf, or wall • Anemometer with 40' cable



7440 Weather Monitor II® Shows all weather monitoring functions and clock on an back lit, 1.875" x 4.375" LCD display. • Temperature readings of –50 to 140°F (outside), 32° to 140°F (inside) • Wind calculations, including direction in 1° or 10° increments, speed to 175mph, and high wind speed and wind chill to –134°F • Barometer measuring barometric pressure with memory recall and trend arrow • Indoor high and low humidity from 10%-90% (outside optional) • Alarms for temperature, wind speed, wind chill, humidity, time and barometric trend • 5.25" x 5.875" x 3" **$269.99**

7859 External Temperature/Humidity Sensor For 7440. Measure outside humidity, dew point and temperature. Includes 40' cable **$119.99**



7425 Weather Wizard III® Offers most monitoring features of the Weather Monitor II, except barometric pressure and inside humidity. Measure daily and accumulated rainfall with optional rain collector. Optional Weather-Link software will process and store data through an IBM®-compatible or Mac®. • Metric or U.S • 5.25" x 5.875" x 3"..... **$179.99**

7852 Rain Collector II For 7440, 7425 and 7415. Read both daily and accumulated rainfall in 0.01" increments. Comes with 40' cable..... **$69.99**

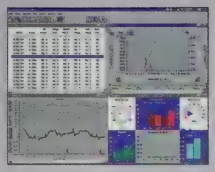
7400 Perception II® State-of-the-art weather technology. Ideal for keeping track of climate conditions inside the home. No installation required. Looks similar to 7425. • Indoor temperature -32°F to 140°F • Barometric pressure with memory recall • Humidity • Alarms for temperature, humidity, time, and barometric change **$139.99**

6150 Wireless Vantage Pro The latest in weather technology! Offers forecasting, on-screen graphing, and more. Monitors barometric pressure, temperature, humidity, rainfall, and wind speed and direction. Quick view icons show the forecast at a glance – sunny, partly sunny, cloudy, rain or snow, while a moving ticker-tape display gives more details. An innovative integrated and solar powered sensor suite combines rain collector, temperature and humidity sensors, and anemometer into one package – making setup easier than ever and improving performance and reliability. Typical wireless range is up to 150-200ft. For improved accuracy, the temperature and humidity sensors are housed inside a shield which protects solar radiation and other sources of radiated and reflected heat **$539.99**

0281 Wind Wizard™ Wind Speed Indicator Handheld unit accurately measures wind speed from 0-60MPH in miles/hour, meters/sec., and Beaufort. Readout dial is supported by sapphire jewel bearings and steadied by a rare-earth, magnetic, damping system. Folding handle latches securely into place. No batteries needed. 3.625" x 2.875" x 1" folded, 2.5 oz..... **$47.99**

0271 TurboMeter™ Wind Speed Indicator A turbine, suspended on sapphire jewel bearings, responds to the lightest winds • 3-digit LED display for viewing in sunlight or at night • Reads speed in miles/hour, knots, feet/minute, or meters/second. • Requires 3 "AAA" batteries (not included). 5.625"h x 2.625"w x 1.125"d, 3 oz..... **$139.99**

SOFTWARE



7862/7866 WEATHERLINK® Links PerceptionII, Weather WizardIII, or Weather Monitor II to a PC or Mac. Create graphs, calculate average conditions, generate summaries, analyze trends, and much more.....ea. **$149.99**

MIDLAND

NEW

WR-300 Specific Area Message Encoding Weather Radio • 20 programmable counties • AM/FM and 7-channel weather radio • Time and alarm clock with full date display • 10 memory channels • Ability to add up to 8 alerts (i.e. AMBER) • Ability to remove alerts (i.e. flood - if you live on a hill) • Choose between single, multiple, or all-county codes • Uses analog and digital signaling.. **$49.99**

WR-30 Weather/Hazard Alert Radio with FM Radio and S.A.M.E. Alert function allows the user to set the weather radio to sound an alert when it receives a weather or hazard broadcast from NOAA. • Monitor up to 20 user-selectable areas • Digital front message displays 56 types of S.A.M.E. watches or warnings • Warning siren and voice alert • Alert status lights for *Statement-Watch-Warning* • FM radio, with 5-station memory, automatically switches to weather alert when NOAA broadcasts an alert • Built-in digital clock • Backlit display • Telescoping antenna and external antenna jack • Operates on AC power or 4 AA battery backup • 7.25"w x 5"h x 1.75"d..... Closeout **$49.99**

74-210 Digital Weather/Hazard Alert Monitor with S.A.M.E. Latest storm or hazard safety information in specified counties • Digital tuning for 7 NOAA frequencies, covering all US/Canada up to 50 miles • Digital FM radio with five memories automatically switches to alerts • Displays up to 56 watches and warnings, radio frequency and time • Operates on 117VAC or 9-14VDC • Accessory jack • Looks like WR-30 • 7"w X 2"h x 5"d C/O **$49.99**

74-200 Digital Weather/Hazard Alert Monitor Provides 24-hour National Weather Service information from 7 NOAA channels for maximum capability up to 50 miles. Eight-character LCD displays up to 56 types of S.A.M.E. watches or warnings and monitors status of user selectable warning system. Weather Command button switches from alert mode to full monitoring. Clock displays time and date and has alarm functions. Telescoping antenna, external antenna input and alert device output jacks. Operates from 9-14VDC and 117VAC with supplied adapter. Accepts 9V battery for backup during outages. 7.75"w x 2"h x 5"d, 18 oz. **$49.99**

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ICOM

AIRCRAFT

A-22 VHF Air Band Transceiver Covers (COM) 118.-136.975, (NAV) 108-117.95 MHz and memory channels Programmed scan, memory scan and lock • 5W output • Instant 121.5MHz • NAV features: 200 channel VOR nav with CDI, radial heading TO/FROM VOR, auto bearing set • Semi-duplex, combines VOR/COM operation • Includes NiCad rechargeable battery and wall charger • 2.5"w x 7.75"h x 1.5"d, 1.4 lbs **$399.99**

MARINE

IC-M3A Mini Handheld Marine VHF Radio *(left)* All US, international and 10 weather channels with alert • Independent channel 16 • Full function and priority scanner • Dual and tri-watch monitors channel 16 while operating another • 1/5W • Backlit display • Water resistant • Includes 6 NiCads and wall charger • 2.25"w x 5.5"h x 1.75"d, 14.4 oz..... **$159.99**

IC-M1V Marine Handheld *(right)* All US, Canadian, international and weather channels with alert • Normal and priority scan • "Tag" scan system • 5W • Dual / tri-watch • PC programmable • Alphanumeric • Waterproof • 1400mAh li-ion battery • 2.1"w x 5.5"h x 1.18"d, 9.9 oz..... **$199.99**

IC-M402W02 Marine VHF Radio All US, Canadian, international and 10 WX channels with alert • Normal/priority scan • Dual/tri-watch • 2-digit LCD with scrolling channels • 4-level backlighting • Key illumination • DSC capability • Built-in SC-101 selective calling • GPS repeater (with added GPS) • "Tag" scan • 25W/1W • Waterproof • 6"w x 2.6"h x 5.5"d, 2 lbs..... **$199.99**

IC-M45AW VHF 25W Marine Transceiver Water-resistant gaskets, including mic • One-piece aluminum diecast chassis • Large backlit display • 'Tag' scan system adds/deletes channels at switch push • 'Smart' mic changes channels or selects power without using panel • Dual/tri-watch monitors channel 16 while operating another • All international, US channels and 10 weather channels with alert • Instant access to ch. 16 and call channel • Low battery indicator • 0.79"h x 2.36"w x 5.5"d **$149.99**

M-710 (21) SSB Marine Transceiver Rugged, 150W, 1136 channels with 160 user-programmable memories, PC programmable, alphanumeric readout on large LCD.General version without 2182kHz alarm, marine bands only . **Special Order $1399.99**

M-802 DSP Marine SSB Transceiver A marine radio with DSP, large backlit LCD with dot matrix characters, and built-in digital selective calling. Also boasts one-touch e-mail and GPS input. • 0.5–29.99MHz rx • 1.6–2.99, 4–4.99, 6-6.99, 8–8.99, 12-13.99, 16–17.99, 18–19.99, 22–22.99, 25–27.5 tx • J3E (SSB), J2B (AFSK) F1B (FSK), A1A (CW), M3E (AM, rx only) • 1355 channels • Selectable 150/60/20W • 9.2"w x 3.7"h x 9.1"d, 10.3 lb. (main) • 8.3"w x 4.4"h x 3.1"d, 1.2 lb. (controller) • 4.4"w x 4.4"h x 3.1"d, 0.8 lb. (speaker).... **Special Order $1749.99**

uniden

MARINE

HH-940P Marine VHF HT *(left)* All US, international, Canadian and 10 weather channels • Programmable memory • All channel scan • Instant channel 16 and 9 • Triple watch • Weather alert • Electronic touch controls • Twist backlit LCD • 1W • Keypad lockout • Submersible • Rechargeable NiCad, belt clip, wrist strap, drop-in charger • 2.5"w x 1.25"d x 4.813"h, 8.8 oz..... Closeout **$119.99**

HH-985 Marine VHF Handheld *(right)* All US, international, Canadian and 10 weather with S.A.M.E. • All/selectable channel scan • Instant channel 16 and 9 • Triple watch • Electronic touch controls • 5/1W • Battery charge indicator • Watertight • Rechargeable NiCad, secure latch belt clip, wrist strap, drop-in battery capability • 2.5"w x 1.5" x 5.25"h, 8.8 oz..... Closeout **$149.99**

ATLANTIS Handheld 2-Way VHF Marine *(middle)* Durable, reliable for any marine activity • All US/international channels • Waterproof • 5/1W output, switchable • Instant channel 16/9 • Triple watch • All N.O.A.A. channels with WX alert • Backlit keypad • Memory channel scan • Flexible rubber antenna **$99.99**

VOYAGER Ultra Compact VHF Handheld Marine Radio All USA, Canadian and international channels • All N.O.A.A. channels with S.A.M.E. weather alert • Triple Watch Plus™ • Channel 16 and 9 • Memory scan • 1W/5W transmit • Backlit keypad and display • Rubber grips/seal • Lithium-ion battery • AC and DC adapter and charging cradle included • Flexible rubber antenna • Meets JIS7 waterproof specs • 3.8"h x 2.4"w x 1.3"d, 8.8 oz **$159.99**

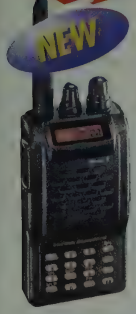
POLARIS

VHF Marine Radio with Digital Selective Calling and Hailer • All USA, international and Canada channels • Instant channel 16/9 • 1/25W transmit • Wireless mic capability – works with up to two wireless mic accessories (optional WHAM and WHAM 2) • GPS input capable • Backlit LCD and keys (including mic) • S.A.M.E. weather alerts • Triple Watch Plus™ • 2-way hailer • Memory and weather scan • Assign channel names • Group call feature • Calling radio position indications with external GPS • Waterproof to JIS4/CRF46 standards • 3.07"h x 7.24"w x 6.61"d, 2.65 lbs..... **$199.99**

OCEANUS Full-Featured VHF Marine Radio *(top)* All USA/international marine channels • 25/1 Watt output • Ultra-compact, rugged construction • QuikCommand™, one-touch channel 16/9 key on microphone • New, durable, rubber grip microphone • Backlit keypad for night or low light • Triple watch • Memory scan • Weather alert and scan • LCD display and dimmer • External speaker jack • Public address **$129.99**

SOLARA 25W VHF Marine Radio *(bottom)* Full-featured • All USA/international channels • Instant channel 16 • 10 weather channels • Selectable 1/25 Watt output • High visibiity LED display • Front mounted speaker for improved sound quality • Transmit LED indicator • Weather resistant housing, microphone and connector **$99.99**

YAESU



AIRCRAFT

VXA-150 Pro V A professional-grade, airband handheld communications transceiver that's compact, stylish, and solid. Transmits at 5.0W (PEP), 1.5W carrier output on the 118-136.975MHz "COM" band, and receives the 108-117.975MHz "NAV" band. Features an exclusive two-mode display with upright or inverted viewing when on your belt, NOAA weather monitoring, 8-character alphanumeric display, 50 memories, and 100 "book" memories. 2.3"w x 4.3"h x 1"d, 12 oz..... **$289.99**

VXA-210 Pilot Professional-grade airband transceiver with VOR navigation display that meets the demanding ruggedness requirements of MIL-STD 810. Provides transmit 5.0W (PEP), 1.5W carrier output and receive on the 118-136.975MHz "COM" band and 108-117.975MHz "NAV" band. The VOR navigation display features DVOR/CDI modes. Receives all NOAA weather channels. Has 50 regular memory channels and 100 "book" memory channels, and 8-character alphanumeric display. Includes headset adapter to work with any aviation headset, intercom, and external push-to-talk switch. PC programmable. 2.3"w x 4.3"h x 1.2"d, 12.2 oz..... **$344.99**

VXA-700 *"Spirit"* Airband, 2M Transceiver (4 transceivers in one!) AM airband, 2M amateur, NAV-COM, 5W tx power output, VOR/CDI display (121.5 MHz emergency) • NOAA WX with severe weather alert • FM broadcast band receive (88-108MHz) • Submersible at 3' for 30 minutes • Magnesium die cast case (superior shielding from RF noise plus unparalleled ruggedness) • High resolution, backlit, dot matrix display • 190 memories with alphanumerics • Back lit keypad • Comes supplied with 1300mAH lithium-ion battery (twice the operational time of NiCads), 117V charger, headset adapter, antenna and belt clip..... **$419.99**

KENWOOD

MARINE

TKM-707 SSB Marine Transceiver A high-performance unit designed to meet stringent marine operation demands. Utilizes heavy-duty, rustproof, aluminum chassis and highest quality parts to maximize performance • 150W RF output • 2-23MHz marine operation with 500kHz-30MHz general receive • 198 memories • Multi-scanning • Emergency alarm built-in ..... **Special Order $1249.99**

ADI

SINGLE BAND HANDHELDS

The AT-201HP and 401HP are advanced single band HT's with 40 memory channels, programmable band scan, auto repeater offset, frequency or channel display and more. The units have rugged metal cases with backlit keypads and displays. 12V batteries come standard, providing 5W of RF power. • MARS/CAP capable • 40 memories • CTCSS enc/decode • Programmable band and memory scan • DTMF paging • Dual frequency watch • Auto repeater offset • User selectable frequency or channel display modes.

AT-201HP 2M Handheld Transmit: 144–148MHz • Receive range: 130–179MHz • 4.25"h x 2"w x 1.3"d excluding battery pack **$99.99**

AT-401HP 70cm Handheld Transmit: 430–450 MHz • Receive: 420–470MHz • 4.25"h x 2"w x 1.3"d excluding battery pack..... **$159.99**

Available Accessories

ARC12 Smart charger, **CBP262** 6 AA NiCad battery holder, **CHA072** Wall charger for RBP072, **CHA120** Wall charger for RBP120/RBP22, **PCA145** Cigarette lighter cable, **RBP120NMH** 13.2V 1kHz NiMH, **SD911** Rapid charger, **SLC200** 2.5W carrying case, **SLC200L** 5W carrying case

Alinco – Supercharged!

DM-330MVT Communications Grade Switching Power Supply

Tiny but powerful with great reviews! Ultra quiet with patented noise shift circuit, but we'll be surprised if you need to use it. 30A continuous, 32A peak output, weighs less than 5 lbs. Variable output from 5 ~ 15 VDC, memory output setting, illuminated V/A meter, Front panel cigar (10A) and quick-connect (5A) terminals, rear panel high-current connections. Ripple less than 15 mV p-p. Perfect for travel, station or test bench use. There's no switching supply like it!

EDX-2 Automatic Wire Antenna Tuner

Get on the air fast! Tunes random length wires from 9 ~ 80 feet. Covers 160 ~ 50 meters. (minimum 40 feet of wire needed for use on 160m) Compatible with DX-70 and DX-77 transceivers. Made for outdoor mounting, use at home, mobile or marine. Outputs to wire antenna (or whip) only (no coax output).

DJ-X2000T Multimode Wide Range "Intelligent" Receiver

It's the "Intelligent Receiver" covering from 100 KHz ~ 2150 MHz* with 2000 memory channels, alphanumeric labeling, receives AM, WFM, NFM, LSB, USB, CW and FM stereo. On-line "help" feature, 20 scan programs, computer programmable (download free software from Alinco website), Channel Scope™ display, Transweeper™, RF frequency counter, digital sound recorder, CTCSS decode, 2 level attenuator, field strength meter, instant "flash tune" and much, much more! Download free control software from www.alinco.com

DJ-X2T "Credit Card" Scanning Receiver

"Credit Card" size, tunes 500 KHz ~ 1 GHz*, 700 memory channels, AM, NFM, WFM modes, SMA antenna connector, 3 different antenna modes, internal AM ferrite bar, illuminated display, RF "sniffer", internal lithium ion battery PLUS snap-on dry-cell power pack and more! Free control software at Alinco web site.

DJ-X3T Multimode Wide Range Communications Receiver

Revolutionary design! Receives 100 KHz ~ 1.3 GHz*, AM, NFM, WFM. 700 memory channels, NiMH battery, four scan modes, stereo FM reception (with optional headphones). Download free control software from www.alinco.com

DJ-X10T Multimode Wide Range Communications Receiver

100 KHz ~ 2 GHz* 1200 memories, alphanumeric display, Channel Scope™ display, receives WFM, NFM, USB, LSB, AM and CW. Internal HELP feature, seven scan modes, clock with on/off function, "new user" and "expert" operating modes, BNC antenna connector, cloning function, affordable Alinco price and much more!

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*Cellular blocked in USA. Unblocked versions available to qualified users, documentation required.
Specifications subject to change without notice or obligation. Performance specifications only apply to amateur bands.

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ADI

The PR-52 and PR-222 handhelds expand your horizons beyond "average" VHF operation, and onto the enjoyable 222MHz amateur band or the 6m "DX" band. These 5-watt, palm-sized units bring you the portability and power you need to fully explore two great VHF bands. Other common features include 5W output with included NiCad battery pack • MARS and CAP capable • Built-in CTCSS encode and decode • 40 memory channels store any tone or offset • Direct frequency entry using 16 button keypad • Frequency or channel display modes • PC program capability or cable cloneable.

PR-52 6 Meter Handheld Transceiver Transmit: 50–54 MHz • Receive: 40–54MHz • 4.25"h x 2"w x 0.25"d excluding battery pack **$159.99**

PR-222 220MHz FM Handheld Transceiver TX: 222–225MHz • RX: 216–228MHz • 4.25"h x 2"w x 0.25"d excluding battery pack **$169.99**

Available Accessories

CBP263 AA battery case, **PTC001** Mobile power pack, **RBP22H** 12V 1000mA NiMH, **SD911** Rapid charger, **SLC22L** Leather case

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AMATEUR RADIO'S VALUE LEADER™

SINGLE BAND HANDHELDS

DJ-S11T Sub-Miniature VHF HT TX/RX: 144–148 MHz • 340 mW output • 20 multi-function memories plus 1 call • Encoder installed (50 tones) • Illuminated display • Use 3 AA or NiCad battery • Pivoting antenna • 4"h x 2"w x 1"d, 6.5 oz..... **$79.99**

Available Accessories

EBC6 Mobile HT bracket, **EDC78** Wall charger (not alkaline), **EDH18** 12V/5.5V DC cigarrette lighter plug, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/earbud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ESC27** Soft case

FREE ITEMS included with some radios. See Price Guide for details.

DJ-S40T Pocket-sized UHF HT Covers 420-450MHz, with receiving capabilities beyond the range. 500mW power output but can be increased to 1W by using the optional NiMH battery or external DC supply. • 100 memories • Call channel and several scan modes • Newly designed case that conceals the speaker but provides loud, clear audio • 38 CTCSS encode/decode settings (decode standard) • 4 tone bursts, making it usable for repeaters in many parts of the world • Large, easy-to-read, illuminated display • Experimental "mosquito repelling feature" • Theft alarm function • Cloning capability • Use with crossband transceivers (base or mobile dualband) as a "remote mic" **$89.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP52N** 3.6V 500mA NiMH battery, **EBP53N** 6.0V 500mA NiMH battery, **EBP54N** 3.6V 1500mA NiMH battery, **EDC105** Drop-in NiMH charger without power supply, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC93** Wall power supply for EDC105, **EDH31** Dry cell battery case, **EME12** Headset/eaphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **EMS8Z** Remote speaker mic, **ERW4** PC cable, **ESC37** Soft case

DJ-196T 2M HT 5W output • 135-174MHz rx • 40 multi-function memory channels • MAR/CAP capability • Alphanumeric display • CTCSS tone encode/ decode and DCS • S-meter • Auto dialer • Cable cloning • PC programming capability • Theft alarm • Experimental insect repel • Back lit keypad • 4.9"h x 2.2"w x 1.6"d, 13.2 oz..... **$139.99**

DJ-296T 222 HT Same as DJ-196T (above) except has a range of 222-225MHz..... **$179.99**

DJ-496T 440 HT Same as DJ-196T (above) except has a range of 430-450MHz..... **$149.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP48N** 9.6V 700mA 5W NiCad battery, **EBP50N** 9.6V 700mA 5W NiMH battery, **EBP51N** 9.6V 1500Ma 5W NiMH battery, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDC97** NiMH quick charger, **EDH30** Dry cell battery case, **EME12** Headset/eaphone/ microphone with VOX, **EME13** Head-set/ear bud/ microphone with VOX, **EME15** Ear-phone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N

DUAL BAND HANDHELDS

DJ-596T 2M/440MHz Dual Band HT The first Amateur HT to support optional digital voice communications. • 5W output on both bands with standard NiMH battery • Wide or narrow FM • Digital voice with optional EJ-43U board • Extended receive capabilities • CTCSS and DCS encode and decode • Three scan modes • Work and save in memory any number of "odd split" transmit/receive offsets • Illuminated keys and display • Large display shows alphanumeric designations for each of the 100 memories • Theft alarm and experimental "mosquito repelling sound" • Nine autodial memories • External terminal control can output 5 VDC @ 5mA from the mic jack, which can be used by experimenters to control external devices • Operates on 6-16 VDC, battery also charges while on external power source • 4.9"h x 2.2"w x 1.6"d, 13.2 oz **$209.99**

Available Accessories

EBC6 Mobile HT bracket, **EBP48N** 9.6V 700mA 5W NiCad battery, **EBP50N** 9.6V 700mA 5W NiMH battery, **EBP51N** 9.6V 1500mA 5W NiMH battery, **EDC16B** Cigarette lighter cable and filter, **EDC36** Angle plug power cable with filter, **EDC37** 13.8V power cable, **EDC43** Cigarette lighter cable, **EDC88** Rapid charger, **EDC97** NiMH quick charger, **EDH30** Dry cell battery case, **EJ43U** Digital board, **EME12** Headset/eaphone/microphone with VOX, **EME13** Headset/ear bud/ microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker microphone with volume control, **ERW4** PC cable, **ESC36** Soft case for EBP48N, **SW596** Windows programming software

DJ-V5TH VHF/UHF Dual Band FM HT Full 2 meter and UHF Amateur band coverage • Standard high-power 700 mAh NiCad battery pack – up to 5W output • 3 output settings • Expandable receive range 76–999MHz (cellular blocked), includes wide FM capability • Split-band operation capability • Eight different tuning steps • Alphanumeric display – up to 6 characters • 200 memory channels plus two call channels • CTCSS encode/decode • DTMF squelch • 4 different European tone bursts • 4 scan modes and 5 programmable scan banks • MARS/CAP capability • Auto-dial memories • Auto high temperature protection feature • SMA antenna connector • Wire cloning capable • Accepts up to 13.8V DC input • 4.5"h x 2.25"w x 1.75"d, 13 oz..... **$209.99**

Available Accessories

EBP46N 9.6V 600mA 5W NiCad battery, **EDC16B** Cigarette light cable with filter, **EDC36** Angle plug power cable with filter **EDC37** 13.8V power cable **EDC43** Cigarette lighter cable, **EDC91** Quick charger, **EDH29** Dry cell battery case, **EME12** Headset/earphone/microphone with VOX, **EME13** Headset/ear bud/microphone with VOX, **EME15** Earphone/microphone with VOX, **EME17** Boom earphone microphone, **EME20** Tie-pin mic/earphone, **EME6** Earphone, **EMS47** Speaker mic with volume control, **EMS8Z** Remote speaker mic, **ESC35** Soft case for EBP45N/46N

ALINCO *Unleash The Power*

New

DR-620T VHF/UHF Dual-Band Mobile/Base

First Amateur Twin Band Mobile To Support Optional Digital Voice Communications*

- RX-VHF 108-173.995 MHz, UHF 335-480 MHz
- TX-VHF 144-147.995 MHz, UHF 430-449.995 MHz
- Receives Airband and Wide FM
- Front control unit separation (optional EDS-9 kit required)
- Advanced 10F3 digital mode with speech compression technology (EJ-47U required)*
- 200 memory channels
- Advanced EJ-50U TNC (optional) supports digi-peat mode
- Remote control features including parameter setting and direct frequency entry through the microphone
- Dual-Band receiver with V/U, V/V, U/U capability
- CTCSS/DCS encode/decode and European Tone-bursts
- OUTPUT: H/M/L-50/10/5 watts VHF
- OUTPUT: H/M/L-35/10/5 watts UHF

DR-605TQ VHF/UHF Dual-Band Mobile/Base

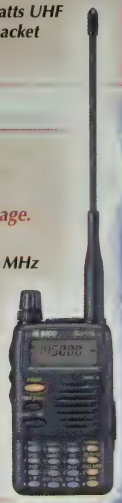
Full 2 Meter/440 Performance

- 100 memory channels, + a "call" channel for each band
- CTCSS encoded+decoded and tone scan
- Cross-band repeat and full duplex capability
- 9600 bps packet ready with dedicated terminals
- Internal duplexer - one easy antenna connection
- RX-VHF 136-173.995 MHz, UHF 420-449.994 MHz
- TX-VHF 144-147.995 MHz, UHF 430-449.994 MHz
- MARS capability (permit required)
- OUTPUT H/L - 50/5 watts VHF, 35/5 watts UHF
- Time-out timer (ideal for repeater and packet operation)

DJ-V5TH VHF/UHF Dual-Band FM Transceiver

5 watts of output power, in a compact package.

- Alphanumeric Display, up to 6 characters
- TX-VHF 144-147.995 MHz, UHF 420-449.995 MHz
- 200 memory channels plus two call channels
- Full VHF + UHF Amateur Band Coverage
- Receive Range, (76 - 999MHz) includes Wide FM capability
- Up to 5 watts output, 3 output settings
- CTCSS encode+decode DTMF squelch and European Tone bursts
- 4 scan modes, 5 programmable scan banks
- MARS capability (permit required)



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- 100 memories in any combination of VHF or UHF channels
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- CTCSS/DCS encode+decode plus tone bursts
- Full 2m and 440 band coverage
- Accepts 6 to 16 VDC direct input
- Illuminated Keys and display
- Wide and narrow FM modes
- 10 autodial memories
- Theft alarm feature
- Optional EJ-40U Digital Voice Board!*
- Programming/Clone software available

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Specifications subject to change without notice or obligation. *Digital communications require at least two similarly equipped transceivers. Digital mode may not be legal in some countries. See FAQ on digital at www.alinco.com. Products intended for use by properly licensed operators. Permits required for MARS use. Specifictions subject to change without notice or obligation.

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AMATEUR RADIO'S VALUE LEADER™

DJ-C5T Credit Card Sized 2M/440MHz Dual Band HT 300mw output • TX: 144–147.995 & 420–449.995MHz • RX: 118–173.995 and 420–449.995MHz • 50 memories • CTCSS tone enc/dec standard • Volume/squelch control • Keylock • Auto power off with Morse Code alert • Mic/earphone jack • TX lamp • Free offset • Reverse monitor • Scan function with skip setting • Multi Euro tone bursts • Battery save & channel display modes • AM aircraft receive with expanded VHF wideband reception • Rechargeable 3.8V lithium-ion battery • 2-hour "snap-in" charger • Soft case • 3.75"h x 2.25"w x 0.43"d, 3 oz **$149.99**

Available Accessories

EDC16B Cigarette light cable with filter, **EDC36** Angle plug power cable with filter, **EDS7** Microphone adapter, **EME17** Boom earphone microphone, **EME18** Earphone, **EME20** Tie-pin mic/earphone, **EMS49** Mini lapel speaker microphone, **EMS50** Speaker microphone, **ESC34** Soft case with belt clip

ICOM

2M SINGLE BAND HANDHELDS

IC-2GXAT/HP 2M Transceiver 7W output @ 13.5 V DC • 144-148MHz rx (136-174MHz expandable) • 40 mem. channels • 700mAh battery • Auto repeater operation • Tone scan • DTMF redial and five auto dial memories • 350 mW audio • Selectable DTMF speed • Built-in PL enc/dec • 35mA current drain • 2.2"w x 4.9"h x 1.4"d, 12.9 oz ..... **CALL**

Available Accessories

AD25 Battery charger adapter, **AD28** Battery pack adapter/rapid charger, **BC105A** Wall charger, **BC119N11** NiCad/NiMH desk charger, **BP130A** Battery case, **BP157A** 900MA 7.2V battery, **BP174** 600mA 12V battery, **CP13L** Right angle cigarette cable with filter, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HS51** Headset/VOX, **HS94** Earpiece headset, **LC116** Case for 2GXAT/BP130/157A/160, **MB30** Mobile or wall bracket, **OPC288** Mini DC power cord, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

IC-T2H SPORT 2M Handheld 6W output @ 9.6 V DC • 136-174MHz receive • 43 memory channels • Tone squelch (CTCSS enc/dec) standard, with pocket beep and tone scan • 8 programmable keys • 5 DTMF memory channels, with up to 32 digits codes and re-dial for autopatching repeaters • 10 weather channels • Direct keypad frequency entry • Back-lighted LCD display • Auto repeater function • "Intuitive" help function (display directs user what to do next when making selections) • 2-step power save function • Monitor function • Lock function • One-piece, die-cast aluminum chassis and super tough polycarbonate casing • Meets MIL SPEC C/DE for shock and vibration • Includes battery holder and uses alkalines (not included) • 2.3"w x 5.5"h x 1.3"d, 14.8 oz.... **CALL**

Available Accessories

AD81 Adapter for BC11911, **BC110A** Wall charger, **BC119N01** Desk charger, **BC122A** AC adapter for BC133, **BC133** Drop-in trickle charger, **BP194** "AA" alkaline battery case, **BP195** 700mA 9.6V battery, **BP196** 1050mA 9.6V battery, **CP12L** Right angle cigarette cable with filter, **CP17L** Right angle cigarette cable for charger, **CST2** DOS programming software, **CSWHH4** Windows software with cable, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset/use with VS1L, **LCF3SWIVEL** Leather case with swivel, **LC145** Carrying case, **MB68** Extra standard belt clip, **MB74** Spring loaded belt clip, **MB87** Swivel belt clip, **OPC254L** Right angle mini DC cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

With the IC-T2H SPORT and a PC you can download up to 40, stored, pre-programmed frequencies, such as in a repeater directory, from your PC directly into the SPORT. PC-to-SPORT and SPORT-to-SPORT cloning requires optional software and cables.

IC-T22A 2M Handheld 5W output @ 13.5 V • 4.0 - 16 VDC input • 136-174MHz rx • Auto low power/power saver (15mA drain) • Remote control microphone (optional HM-75A) • 80 memory channels (40 with alpha display) • VHF/UHF air band receive • Auto repeater function • Backlit display • Die cast aluminum frame and heat sink • Optional tone scan • 2.3"w x 4.3"h x 1. 1"d, 10.9 oz ..... **CALL**

Available Accessories

AD56 Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BP170** Battery case, **BP172** 950 mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC125** Case for T22A with BP170/71/72, **LC126** Case for T22A with BP173, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **SP13** Earphone, **UT94** Tone squelch, **VS1** VOX-PTT unit for HS94

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FREE ITEMS included with some radios. See Price Guide for details.

ICOM

IC-V8 2M FM HT ICOM's first amateur 2m handheld radio with CTCSS/DTCS enc/decode with tone scan. You will not find a 2M HT that is easier to use. • Retro design • 144-148MHz • Full 5.5W output (standard battery) • Acoustical design for the best audio • 100 alphanumeric memories with easy recall • Scans 40 channels/second • Zoom through personalized scan ranges • Customize operatation using up/down and rotary controls • Designed for any size hand with full-sized keypad for larger fingers • Drop-in trickle charger included, which operates from 12VDC either in home or car; charge battery in radio or alone • Use a PC to set-up operating parameters • Durable green polycarbonate front panel and aluminum diecast chasis built to military specs • 2.125"w x 5.188"h x 1.375"d, 12.3 oz ..... **CALL**

Available Accessories

AD101 Battery adapter for BP211 and BC119N01, **AD9411** Adapter cup for BC119N01, **BC119N01** Desk charger, **BC14401** Desk charger with adapter, **BP208** Battery case, **BP209** 7.2V 1100mA 5.5W battery, **BP210** 7.2V 1650mA 5.5W battery, **BP211** 7.4V 1600mA Lith ion battery, **BP222** 7.2V 600mA 5.5W battery, **CP17L** Right angle cigarette cable for charger, **CSV8** Cloning software, **HM46L** Slim-line speaker mic with right angle plug, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS51** Headset/VOX, **HS94** Earpiece headset, **LCF3GSWIVEL** Leather case with swivel, **MB68** Extra standard belt clip, **MB74** Spring loaded belt clip, **MB87** Swivel belt clip, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **OPC478U** PC USB cable, **OPC515L** Right angle DC cable for charger, **SP13** Earphone, **UT108** DTMF decode unit, **VS1L** Right angle VOX-PTT unit for HS94

DUAL BAND HANDHELDS

IC-Q7ABC Ultra Compact 2M/440MHz Dual Band HT with Full Feature Scanner Extra easy to use and wide FM performance • Output power: 350mW (VHF), 300mW (UHF) • Transmit: 144–148MHz and 440–450MHz triple conversion • Receive: 30–1300MHz (cell blocked on U.S. model) • 200 memories • Superior audio in its class from large 1.4" speaker and 100mW audio output • CTCSS tone encoder/decoder with pocket beep • Easy to use – only 7 buttons (including power) and a large, easy to grasp tuning dial • Auto repeater function • Channel operation • Tone scan • 10 tuning steps • Easy reverse • Dual watch • RIT function • Auto power OFF power saver • Manually or automatically controlled LCD back lighting for easy low light operation • Meets MILSPEC C/D/E for shock and vibration • Includes 2 AA-size NiCads, or "AA" alkalines • 2.3"w x 3.75"h x 1.1"d, 6 oz ..... **CALL**

Available Accessories

AD92SMA SMA-BNC adapter, **BC127A** Charger for 2 or 4 "AA" NiCads, **HM128** Earphone + mic, **HM46** Slim-line speaker mic, **HS85** Headset with VOX, **LC146** Carrying case, **OPC782** Plug adapter cable, **SP13** Earphone

IC-T7H 2M/440MHz Dual Band HT 5W with standard battery (9.6V/650mAh) • Up to 6W @ 13.5V DC (optional DC power cable required) • TX 144-148 MHz, 440–450MHz; RX 118–174 MHz, 400–470MHz • 250mW+ audio output • One-touch band switching • Priority watch • 70 memories • 9 DTMF memories for auto dialing • CTCSS tone encode/decode • 50 independently programmable tone frequencies • Auto power save and repeater function • Auto OFF • Thumb-touch lock settings feature • Internal guide • Backlit LCD • Wall charger • Programmable • 2.3"w x 4.8"h x 1.1"d, 14.3 oz ..... **CALL**

Available Accessories

AD56 Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BP170** Battery case, **BP172** 950mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CST7** DOS programming software, **CSWHH4** Windows software with cable, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC136** Case for T7H with BP170/171/172, **LC137** Case for T7H with BP173/180, **MB30** Mobile or wall bracket, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

FREE ITEMS included with some radios. See Price Guide for details.

IC-W32A 2M/440MHz Dual Band HT 5W output @ 13.5V DC • 144-148, 440-450 transmit; 118-174, 400-470 receive • 200 memories • 8-character alphanumeric memory identification • Keypad entry • Backlit display and keypad • HT-to-HT cloning capability or PC programming capability (optional accessories required) • Independent tuning and volume band controls • VHF/UHF ex-change function allows assignment of VHF/UHF band controls to either knob • Meets MILSPEC C/D/E for shock and vibration • 2.25"w x 5.5"h x 1.4"d, 16 oz..... **CALL**

Available Accessories

AD51 Battery pack adapter/rapid charger, **BC119N11** NiCad/NiMH desk charger, **BP170** Battery case, **BP172** 950mA 4.8V battery, **BP173** 600mA 9.6V battery, **BP180** 600mA 7.2V battery, **CP12** Cigarette cable with filter, **CP12L** Right angle cigarette cable with filter, **CSWHH4** Windows software with cable, **CSW32** DOS programming software, **FA1443B** 2M/440 duck, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM54** Heavy-duty speaker mic, **HM75A** Remote control mic, **HS10** Boom mic/headset, **HS10SA** VOX unit, **HS10SB** PTT switchbox, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC128** Carrying case, **MB30** Mobile or wall brkt, **NCP1** Nylon chest pack, **OPC254** Mini DC power cable, **OPC254L** Right angle mini DC power cable, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

MULTI BAND HANDHELDS

IC-T90A 6M/2M/70cm FM Handheld Palm-sized, simple to operate, and designed with a die-cast aluminum chassis. New MOSFET technology, along with a 7.4V Lithium-ion battery, produces a full 5W. Wideband receive covers 495 kHz to 999.990MHz (cellular blocked), AM, FM or WFM modes. Unique WX Alert feature constantly checks local active weather station for alert tone. If alert occurs, the HT automatically switches to the WX channel and beeps. Scanning management with 555 alphanumeric memories (500 regular, 50 scan edges, and 5 call channels). Dynamic Memory Scan allows choosing any of 450 memories to scan, and, with its soft partitioning, setting up a maximum of 18 banks or 100 channels/bank. Pre-programmed with TV station frequencies! Over-sized buttons for easy operation and programming. Optional PC software for customizing of memories, alphanumerics, scanning lists and parameters. • 2.28"w x 3.44"h x 1.16"d, 8.47 oz . **CALL**

Available Accessories

AD92SMA SMA – BNC adapter, **BC139** Desk rapid charger, **BP216** Battery case, **BP217** 7.4V 1300mA lith-ion, **CP19R** Cigarette cable with filter, **CST90A** Windows cloning software, **HM128** Earphone + mic, **HM131** Speaker/mic/earphone jack/clip, **HM46** Slim-line speaker mic, **HM75A** Remote control mic, **HS85** Headset with VOX, **HS94** Earpiece headset, **LC152A** Carry case, **MB83** Swivel belt clip, **OPC474** Radio-to-radio clone cable, **OPC478** PC cable, **OPC478U** PC USB cable, **SP13** Earphone, **VS1** VOX-PTT unit for HS94

KENWOOD

SINGLE BAND HANDHELD

TH-22ATH 2M FM Handheld This is a super-compact and lightweight transceiver with impressive performance. EZ to use menu system. Palm-sized, sharply styled, easily slips into pocket. • 5W output from MOS FET power module and standard PB-34 NiCad battery • 136-174 receive • RF output control (Hi/Low/EL) • 144–148 MHz coverage • 40 memory channels stored in E²PROM (plus 1 call channel) • Auto repeater offset • Multiple scan functions (VFO, call and memory) • Dual Scan stop modes (CO and TO) • CTCSS encode • DTSS and page • Luminescent keypad and LCD with backlighting • Built-in DTMF keyboard • (5) 15-number DTMF memories • Tone Alert with time indicator • Selectable squelch configuration • Busy channel lock out • Battery voltage indicator • Automatic power off • Drop-in desktop charger • 2.1"w x 6.1"h x 1.12"d, 11 oz..... **$219.99**

Available Accessories

BT9 Four "AA" battery holder, **EMC3** Label clip mic/earphone PC, **HMC3** VOX/boom mic headset, **KSC14** 2 pack rapid charger, **KSC8A** Drop-in charger, **PB33** 1200mA 6V battery, **PB34** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **TSU8** CTCSS decoder, **WR2** Water resistant bag

KENWOOD

DUAL BAND HANDHELDS

TH-D7A(G) 2M/440MHz **Dual Band Data Communicator** Equipped with a built-in TNC for simple packet operation or with a GPS as a full function APRS™. Reports position, speed and heading as well as calculation of distance to destination. Also use for APRS™ messaging – send up to 45 characters without a PC. Advanced functions possible with the VC-H1 • 5.5W @ 13.6V DC • 2M: 144–148MHz tx, 118–174MHz rx • 440MHz: 430–450MHz tx, 400–480MHz rx • 1200/9600 baud TNC • Station list stores data in up to 40 memory channels • Grid square locator display • Dual receive on same band for voice and data (VHF only) • 200 memories • PC programmable for frequency and name (PG-4W required) • 16 backlit keys • CTCSS encode/decode • MIL-SPEC 810C/D/E water resistant • 10 channel DTMF phone and auto patch memories • TM-V7A and TM-742D DTMF remote • Altitude • Time • 3-position memory • 3-memory text • Position ambiguity • Audible emergency signal • Auto message response • Data band settings • 1750MHz packet burst • 4.75"h x 2.25"w x 1.5"d, 12 oz **$359.95**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB38** 650mA 6V NiCad battery, **PB39** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4V** VCH1 connector cable, **PG4W** PC software and cable, **SC47B** Black soft case, **SC47OR** Orange soft case, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys

TH-G71A Dual Band FM HT Its ergonomic design, illuminated and back lit display all combine to make operation a breeze. The EZ to use menu system gives full control over all operating settings. • 6W (VHF), 5.5W (UHF) @ 13.8V DC • 2M: 144–148 tx/rx and 118–174MHz extended receive including Aircraft, 440MHz: 430–450MHz tx and 400–470 MHz rx • 200 multi-function memory channels • Memory name function • Multiple scan modes • CTCSS tone scan • DTMF memory (10 channels) • DTMF remote control • Function key lock • Auto battery saver circuit • Auto power-off • TIme-out timer • PC ready • High performance antenna • TM-V7A remote control • MIL-STD 810E approved • 2.3"w x 4.4"h x 1.3"d, 11.6 oz..... **$229.95**

Available Accessories

BC19 Rapid charger, **BT11** Four "AA" battery holder, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **J29063113** Belt clip, **PB38** 650mA 6V NiCad battery, **PB39** 600mA 9.6V 5W battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC45** Soft case for G71A with PB38/39, **SMC32** Mini right angle speaker mic, **SMC33** Speaker mic with remote control, **SMC34** Speaker mic with volume function keys, **WR2** Water resistant bag

TRIBAND HANDHELD

TH-F6A FM Triband HT Covers 144/220 and 440MHz plus 0.1-1300 cell blocked (including Aircraft receive). • Dual channel receive capability • FM/FM-W/FM-N/AM plus SSB/CW receive • Ferrite bar antenna for receiving AM • Weather channel RX mode • 435 memories (8 groups of 50 channels) • 3 call channels plus 20 for programmable scan • Multiple scan functions • 7.4V 1550 mAh lithium-ion battery for 5W and extended operation • 16-key backlit pad plus multi-scroll key • Built-in charging circuitry – battery recharges while unit opertaes form a DC supply • Built-in CTCSS enc/decode/DCS • Large 8-character alphanumeric frequency display • Wireless remote control • Battery indicator • Internal VOX • MCP programming software via web (using PG-4P) • Meets MIL-STD 810 C/D/E for resistance to vibration, shock and light rain • 3.438"h x 2.313"w x 1.188"d, 8.8 oz (with battery)..... **$329.95**

Available Accessories

BT13 AA battery case, **EMC3** Lapel clip mic/earphone PC, **HMC3** VOX/boom mic headset, **PB42L** Lithium ion battery, **PG2W** DC cable, **PG3J** Cigarette cord with filter, **PG4P** PC control cable, **SC51** Softcase with swivel belt clip, **SMC32** Mini right angle speaker mic, **SMC33** Spker mic with remote control, **SMC34** Spker mic with volume function keys

FREE ITEMS included with some radios.
See Price Guide for details.

YAESU

SINGLE BAND HTS

VX-150 2M Ultra-Rugged FM HT Designed to perform under the most difficult conditions. Packed with leading edge features. Die-cast aluminum case • High output speaker • Illuminated keypad and OmniGlow™ • 5W with standard battery • Three power output levels • 144–148 MHz tx, 140–174 MHz rx • 209 memories • SmartSearch™ auto memory loading • Keypad with 16 multi-function keys • Two user-definable function keys • Priority monitoring • Dual watch • Alphanumeric recall • Memory bank and preferential memory scanning • VFO search • Auto repeater shift • ARTS™ • Wide and narrow deviation selection • 1750Hz tone calling • Pro-grammable menu • Battery saver and auto power off • MIL-STD 810D/E rating • 4.2"h x 2.3w x 1.1"d, 11.5 oz..... **CALL**

Available Accessories

ADMS1F Programming software, **CN3** BNC-SMA adapter, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA25** 6 "AA" cell battery case, **FNBV57** 7.2V 1100mA battery, **FNB64** 7.2V 700mA battery, **LCC150/TT** Leather case, **LCC150S/TT** Leather case/swivel, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC72B** Extra wall charger, **VAC400B** One-hour rapid charger, **VC25** VOX headset

MULTI BAND HANDHELDS

FT-50RD/41B Ultra Compact Dual Band VHF/UHF HT High performance, heavy-duty, rugged, state-of-the-art and small enough to put in a pocket. Simple to operate, with all the features you want. • Power output 5/2.8/ 1/0.1W • Transmit: 144–148MHz and 430–450MHz • RX: 76–200, 300–540, 590–999MHz (cell blocked), includes AM aircraft receive, FM narrow and wide • 3 selectable filters • Digital Code Squelch • CTCSS encode/decode • 112 memories plus 2 home channels • High speed scanning • 48-character alphanumeric display • ARTS™ • Dual watch • Digital voice recorder • Windows™ PC programmable • Rear mount battery • MIL-STD 810D/E rating • 3.9"h x 2.25"w x 1.2"d, 11.5 oz..... **CALL**

Available Accessories

ADMS1E Software, **CA14** Two charging sleeves, **CA15** Charging stand for NC60B, **CLIP10** Spring loaded belt clip, **CN3** BNC-SMA adapter, **CSCV10** Cordura case, **CSC68** Case for unit with FNB41/FBA15, **CSC69** Case for unit with FNB40, **CT27** Cloning cable/CT27A, **CT30** Mic Y adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter; plug/wire only, **FBA15** 4 "AA" battery holder, **FBA21** 6 "AA" battery holder, **FEP10** Earphone, **FNBV47** 7.2V 1100mA battery with belt clip, **FNB41** 9.6V 600mA 5W battery, **FNB42** 9.6V 1100mA 5W battery, **LCC10C** Leather case with clip for unit with FNB41/V47, **LCC10S** Leather case with sleeve for unit with FNB41/V47, **MH30C2B** Speaker mic, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and mic, **NC50** One-hour dual slot charger, **NC60B** Wall charger, **PA17** Battery cable extender, **RH1** Black rubber protector, **RH1R** Orange rubber protector, **VC25** VOX headset

VX-1R Ultra Compact Dual Band HT Provides superb local communications at power levels of 1W or 500mW. Impressive memory and scanning capabilities in addition to wideband receive which includes VHF and UHF TV audio. AM broadcast, FM broadcast, AM aircraft band, and public safety channels. • Receive ranges: 0.5–1.7MHz (BC Band) 76–108MHz (FM) • 108–137 (AIR) 137–170 (VHF HAM) • 170–222MHz (VHF TV) • 222–450MHz • 470–800MHz (UHF TV) • 800–999MHz • Cell blocked • Transmit ranges: 144–148 MHz • 430–450MHz • 500 mW with standard 3.6V lithium-ion battery (1W at 6V DC) • 291 memory channels • SmartSearch™ • CTCSS enc/decode, digital coded squelch • Backlit keypad • ARTS™ • One-touch emergency system • PC programmable • 6-digit alphanumeric memory labels • 3.2"h x 1.9"w x 1"d, 4 oz..... **CALL**

Available Accessories

ADMS1E Windows software, **CN3** BNC-SMA adapter, **CSC71** Soft case, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC15** DC adapter, **FBA20** Battery holder, **FEP10** Earphone, **FNB52LI** 3.6V 700mA lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC66B** Two-hour charger, **VC25** VOX headset

AES
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SINGLE BAND HANDHELDS

Manufacturer	ADI	ADI	ADI	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	ICOM
Model	AT-201HP	AT-401HP	PR-52	PR-222	DJ-196T	DJ-296T	DJ-496T	DJ-S11T	DJ-S40T	IC-2GXAT/HP	IC-T2H SPORT	IC-T22A	IC-V8
Band	2 meters	440MHz	6 meters	220MHz	2 meters	220MHz	440MHz	2 meters	440MHz	2 meters	2 meters	2 meters	2 meters
Rx Range (MHz)	130-179	420-470	40-54	216-228	135-174	222-225	430-450	144-148	425-450	144-148(8)	136-174	136-174	136-174
Aircraft Rx	No	No	No	No	No	No	No	No	No	No	No	No	No
Power Output	5W	5W	5W	5W	5W	5W	5W	340mW	500mW	7W	6W	5W(9)	5.5W
Touch-Tone Pad	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes(4)
Tone Decode	Yes	Yes	Yes	Yes	Yes(4)	Yes(4)	Yes(4)	No	Yes	Yes	Yes	Yes	Yes(4)
Memories	40	40	40	40	40	40	40	21	100	43	40	80/40(10)	100
Alphanumeric	No	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Battery Type	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	Ni-Cad	AA	AA	Ni-Cad	Ni-Cad*	Ni-Cad	Ni-Cad
PC Programmable	No	No	Yes	Yes	No	No	No	No	No	No	Yes	No	Yes
Antenna Conn	BNC	BNC	TNC(1)	BNC	BNC	BNC	BNC	Fixed(7)	SMA	BNC	BNC	BNC	BNC
Size (h/w/d, in.) Weight (oz.)	3.3/2.2/1.2 6.6	3.3/2.2/1.2 6.6	4.25/2.0/0.75 14.5	4.25/2.0/0.75 14.5	4.9/2.2/1.6 13.2	4.9/2.2/1.6 13.2	4.9/2.2/1.6 13.2	3.9/2.2/1.1 2.72	4.0/2.2/1.2 3.5	4.9/2.2/1.4 12.9	4.5/2.3/1.3 14.8	4.8/2.3/1.1 10.9	5.2/2.1/1.4 12.3

Manufacturer	KENWOOD	YAESU
Model	TH-22ATH	VX-150
Band	2 meters	2 meters
Rx Range (MHz)	136-174	140-174
Aircraft Rx	No	No
Power Output	5W	5W
Touch-Tone Pad	Yes	Yes
Tone Encode	Yes	Yes
Tone Decode	TSU-8	Yes
Memories	41	200
Alphanumeric	No	Yes
Battery Type	Ni-Cad	Ni-Cad
PC Programmable	No	Yes
Antenna Conn	BNC	SMA
Size (h/w/d, in.) Weight (oz.)	4.6/2.2/1.0 10.2	4.3/2.3/1.0 11.5

*Only alkaline case included
(1) TNC ant. jack commonly found on cell & commercial equip.
(4) Standard CTCSS plus DCS
(6) Guaranteed 440-450MHz only
(7) Folding ant. attached. 2m ant. - telescopic, 70cm - flex.
(8) Expandable to 136-174
(9) With external 13.8V
(10) 80 without Alphanumerics, 40 with Alphanumerics
(13) Dual operation between Voice & Data
(14) 1W with wall cube or cigarette adapter
All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

MULTI BAND HANDHELDS

Manufacturer	ALINCO	ALINCO	ALINCO	ICOM	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	YAESU	YAESU	YAESU	YAESU
Model	DJ-596T	DJ-C5T	DJ-V5TH	IC-Q7ABC	IC-T7H	IC-T90A	IC-W32A	TH-D7A(G)	TH-F6A	TH-G71A	FT-50RD/41B	VX-1R	VX-5R & VX-5RS	VX-7R & VX-7RB
Tx Range (MHz)	144-148 420-450	144-148 420-450	144-148 438-450	144-148 440-450	144-148 440-450	50-54 144-148 430-450	144-148 440-450	144-148 430-450	144-148 222-225 430-450	144-148 430-450	144-148 430-450	144-148 430-450	50-54 144-148 430-450	50-54, 144-148 222-225 430-450
Rx Range (MHz)	136-174 400-512	118-174 420-450	76-999	30-1300	118-174 400-470	.495-999.99	118-174 400-470	118-174 400-480	0.1-1300	118-174 400-470	76-200 300-540 590-999	.5-1.7 76-999	0.5-16 48-729 800-999	.5-16 48-730 800-900
Single/Multi Rx	Single	Single	Single	Single	Single	Single	Dual	Single(13)	Dual	Single	Single	Single	Single	Dual
Aircraft Rx	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Output	5W	300mW	5W	350mW	6W	5W	5W	5W	5W	5W	5W	500mW(14)	5W	5W (300mW/222)
Memories	100	50	200	200	70	555	200	200	435	200	112	291	220	220
CTCSS	Enc/Dec/DCS	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec	Enc/Dec	Enc/Dec/DCS	Enc/Dec	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS	Enc/Dec/DCS
TTP	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Alphanumeric	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PC Programmable	No	No	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	TBA
Battery Type	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Li-ion	Ni-Cad	Ni-Cad	Li-ion	Li-ion	Li-ion
Ant.Connector	BNC	Fixed	SMA	SMA	BNC	SMA	BNC	SMA	SMA	SMA	SMA	SMA	SMA	SMA
Size (h/w/d, in.) Weigh (oz.)	4.9/2.2/1.6 13.2	3.7/2.2/0.4 3.2	3.8/2.3/1.3 12	3.8/2.3/1.1 6.4	4.8/2.3/1.1 14.3	3.4/2.3/1.2 8.5	5.5/2.3/1.4 16	4.7/2.1/1.7 13.4	3.4/2.3/1.2 8.8	4.4/2.1/1.3 11.6	3.9/2.3/1.2 11.5	3.2/1.9/1.0 4	4.1/2.4/1.3 10	3.5/2.3/1 19.6

YAESU

VX-5R **Tri-Band HT** A miniature FM transceiver with extensive frequency coverage of 2M, 6M, 440MHz (including AM and FM broadcast), HF shortwave up to 16MHz and VHF AM aircraft. Super thin profile and durable lightweight design. • 5W (4.5W 430MHz) with standard lithium-ion battery • 50–54, 144–148 and 430–450MHz tx, .5–15.995, 48–728.990 and 800–998.990 MHz wideband rx (cell blocked) • 220 memories plus home channels • 10 auto-scan weather channels • CTCSS enc/decode, DCS • Backlit keypad • ARTS™ • 8-character, alphanumerics • Time-out timer • Dual watch • Dot matrix LCD • Smart search spectrum analyzer • Temperature display read-out • Barometric pressure sensor option • Automatic power-off • Windows PC programmable • 16-digit 9-memory DTMF autodialer • Busy channel lock out • Multi-section antenna • Aluminum diecast case • MIL-STD 810 rating • 3.4"h x 2.3"w x 1.1"d, 8.9 oz..... **CALL**

VX-5RS Same radio as the above VX-5R with a silver case..... **CALL**

Available Accessories

ADMS1E Windows software, **CD15A** Charger stand for NC72B, **CN3** BNC-SMA adapter, **CSC73** Soft case, **CT27** Cloning cable, **CT44** 2-pin speaker mic adapter, **CT53** Packet cable, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB58LI** 7.2V 1100mA lithium-ion battery, **MH34B4B** Speaker mic, **MH37A4B** Earpiece and microphone, **NC72B** Extra wall charger, **SU1** Altitude/barometric pressure sensor, **VC25** VOX headset

VX-7R **Ultra-Rugged, Submersible Magnesium FM Triband HT** With a full 5W output on 50, 144 and 430MHz FM, the 5R also offers bonus coverage on 222MHz FM band at 300mW. The rugged design allows the unit to be submersible at 3' for 1/2 an hour and it sports rubber bumpers, all for JIS-7 specification protection. • 500kHz to 999MHz continuous receive (cellular blocked) • Four simultaneous dual receive modes • Over 900 memories including 40 memory scan band limit, 10 home channels and 10 weather • Built-in CTCSS/DCS enc/decode • "Split Tone" capability • Auto-Range Transponding System • Easy-to-read display with graphical and pictorial tools – user-changeable icons and fonts • Full-color strobe LED • Spectrum scope display • 24-hour clock • On/Off timers • Internet key for instant access to WIRES™ internet-linking • "Quick-Draw" swivel-mount belt clip • 7.4V 130mAh lithium-ion battery • Choose black or silver • 2.4"w x 3.5"h x 1.1"d, 9.2 oz..... **CALL**

VX-7RB Same radio as the above VX-7R with a black case..... **CALL**

Available Accessories

CD15A Rapid charger for NC72B, **CMP460A** Waterproof speaker/mic, **CN3** BNC-SMA adapter, **CSC88** Soft case, **CT91** Microphone adapter, **EDC5B** DC adapter/filter, **EDC6** DC adapter/plug/wire only, **FBA23** 2 "AA" cell battery case, **FNB80LI** 7.4V 1300mA lithium-ion battery, **MH57A4B** Speaker/mic, **SU1** Altitude/barometric pressure sensor, **VC27** Earpiece/mic

ALINCO

AMATEUR RADIO'S VALUE LEADER™

HF RADIOS

DX-70TH **Compact HF** Covers 160-6M • 150kHz-30MHz and 50-54MHz receive • SSB, CW, AM, FM • 100W (AM 40W) • Detachable face • 100 multi-function memories • Two VFOs • Easy split operation mode • Multi-function control • Narrow filter • Noise blanker • Speech processor • CTCSS for 10M and 6M repeaters • Full, semi or auto break-in CW • All mode squelch • General coverage receiver • Quick offset • Two scan modes • Separate antenna terminals for HF and 6M • RIT • TXIT • Selectable AGC • RF gain control • Dial lock • Automatic antenna tuner interface • MARS/CAP capability • 2.25"h x 7"w x 9"d, 8.3 lbs..... **$749.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **DM340MVT** 30 amp power supply with meters, **EBC8** Front control head bracket, **EBC9** Extra mobile bracket, **EDS4** 5' remote mount accessory cable kit, **EDS5** 5' mic extension cable, **EDS6** 15' remote cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk mic, **PC25** DC cable

FREE ITEMS included with some radios.
See Price Guide for details.

DX-77T 160-10M • 500kHz-30MHz general rx • SSB/CW/AM/FM • 100W (AM 40W) • 100 multi-function memories • Two VFOs • PC control via optional cable and software • Direct digital synthesis • Easy split operation mode • Multi-function control • CW narrow filters • Noise blanker • 6–50 WPM electric keyer • Full, semi or auto break-in CW • All mode squelch • Quick offset • Two scan modes • RIT • High/low power setting control • Selectable AGC • RF gain control (RX) • Dial lock • Auto antenna tuner interface • Industry standard power input plug • MARS/ CAP capability • Requires 13.8V DC @ 20A • 3.6"h x 9.5"w x 9"d, 8.3 lbs. **$699.99**

Available Accessories

DM330MVT 30 amp switching power supply with meter, **DM340MVT** 30 amp power supply with meters, **EDS5** 5' mic extension cable, **EDX2** 160-10M auto wire tuner, **EMS14** Desk top microphone, **ERW4** PC cable, **PC25** DC cable

ICOM

DUAL BAND BASE STATION

IC-910H **VHF/UHF All Mode Transceiver** With the optional 1200MHz installed, it becomes an SSB/CW/FM tribander. • 144-148, 430-450 and 1240-1300MHz (option) • 99 regular memories, 1 call, 6 scan edges for each band, 10 satellite • 5-100W (2m), 5-75W (440MHz), optional 1-10W (1200 MHz) • 3.5" multi-function LCD, 10-key direct enty keypad • Satellite mode support • Simultaneously works 2 bands in receive and full duplex • CW full support • Versatile scanning functions • Memory pad • 50 tone CTCSS encoder • One-touch and auto repeater functions • Speech compressor • IF shift • VOX • RIT • Requires 13.8V DC @ 23A • 9.5"w x 3.6"h x 9.4"d, 10 lbs..... **CALL**

Available Accessories

AG1200 1.2gHz mast mount preamp, **AG25** 2M mast mount preamp, **AG35** 430 mast mount preamp, **CR293** High stability crystal unit, **CT17** Level converter, **FL132** 500Hz main receiver CW filter, **FL133** 500Hz sub-band receiver CW filter, **MB23** Carrying handle, **MB5** Mobile mount, **PS125** 25A switching power supply, **SM20** Stand mic for base stations, **SP10** Slim-line external speaker, **SP7** Small external speaker, **UT102** Voice synthesizer, **UT106** DSP unit, **UX910** 10W 1.2gHz module

HF RADIOS

IC-718 **HF All Band Transceiver** Advanced features and performance, yet easy to use. Its simplfied operation is perfect for beginners or great as a back-up rig. • Covers 160–10M • Continuous receive coverage 0.03–30MHz • 100W output (40W AM) • Built-in USB, LSB, CW, RTTY (FSK) and AM • 101 memories • Variety of scanning functions • Front mounted loudspeaker • IF shift • Microphone compressor • RF gain control • Noise blanker • RF attenuator and preamp • Auto notch • Ample CW features include an electronic keyer • VOX • Flexible filter selection • Digital S/RF meter • High frequency stability • Optional voice synthesizer and DSP capability • Hand mic included • Requires 13.8VDC @ 20A • 9.4"w x 3.75"h x 9.4"d, 8.5 lb..... **CALL**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR338** High stability crystal, **CT17** Level converter, **FL222** 1.9kHz 455kHz IF SSB filter, **FL257** 3.3kHz 455kHz IF SSB filter, **FL52A** 500Hz 455 kHz IF CW filter, **FL53A** 250Hz 455kHz IF CW filter, **FL96** 2.8 kHz 455kHz IF SSB filter, **MB23** Carrying handle, **MB5** Mobile mount, **OPC025D** DC cable, **OPC598** 23' extension cable for AT180, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Speaker, **SP7** Small external spker, **UT102** Voice synthesizer, **UT106** DSP unit

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IC-756PROII ADDITIONAL FEATURES

5" TFT COLOR DISPLAY • SEPARATE RX ONLY ANTENNA JACK • TRANSVERTER I/O PORT • LIVE BAND SCOPE • DIGITAL & ANALOG METER • DUAL RECEIVE • DIGITAL VOICE RECORDER

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IC-746PRO ADDITIONAL FEATURES

LCD DISPLAY • 9600 BAUD PACKET CAPABLE • DIGITAL METER • RX AUDIO EQUALIZER • SWR ANALYZER • SWEEPING SCOPE

Accessories

IC-PW1 1kW Linear Amplifier

- *Remote Control Head*
- *100% Duty Cycle*
- *Auto Antenna Tuner*

Can be used with *ANY* HF, 6M, or HF/6M transceiver.

PS-125 DC Power Supply

- 25 Amps Continuous
- 13.8 V DC
- Quieter RF Operation

Smaller footprint - takes up less space, matches newer ICOM rigs.

SP-20 External Speaker

Equipped with four selectable audio filters. Can be connected to two transceivers.

SM-20 Desktop Mic

Provides high quality audio to the transceiver. Equipped with low frequency cut capability.

Why not? You deserve it!

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IC-703 HF QRP Transceiver Multi-use versatility for the home or shack, mobile DX'ing in your car and as a field unit in the outdoors. Covers 160-10M and depending on the power supply, the rig is capable of 5W @ 9.6VDC and 10W @ 13.8VDC. It looks and feels like the famous IC-706 series, but in a QRP version without the VHF and UHF bands. The 703 offers a new built-in relay-type automatic antenna tuner for 50Ω antennas. • USB/LSB/CW/RTTY/AM/FM • 105 memory channels (99 split, 6 scan edges) • Maximum 10W output, adjustable steps (5W when using 9.6V batteries) • Memory keyer function • Large capacity external battery pack and antenna options suitable for field operation options • 6.563"w x 2.28"h x 4.875"d, 4.4 lbs ..... **CALL**

IC-703 PLUS Same as above, plus 6M ..... **CALL**

IC-706 MK II-G Compact HF/VHF/UHF All Mode Base station performance and features in a mobile-sized package. Coverage 160–10M + 6M, 2M and 70cm • 0.03–200MHz broadband receive with wide AM and wide FM broadcast • 100W (40W AM) from 160–6M, 50W (40W AM) on 2M, 20W (8W AM) on 70cm • RTTY • PSK31 • AF speech compressor • 107 alphanumeric memories • Detachable control panel • 2 filter slots • AF-DSP • Tone encode, scan and squelch • Cross band split • Noise blanker • IF shift • Preamp/attenuator • CW keyer • CW pitch control/reverse • Full break-in • VOX • Simple bandscope • SWR graphic sweep display • One-button duplex and auto repeater • Large built-in speaker • 2 antenna connectors • Requires 13.8V DC @ 20A • 6.6"w x 2.3"h x 7.9"d, 5.5 lbs ..... **CALL**

Available Accessories

BET706TUNECONT Better RF IC706 tune control, **AH2B** Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **AT180** HF+6M auto coax antenna tuner, **CR282** Stability crystal, **CT17** Level converter, **FL100** 500Hz 9MHz IF CW filter, **FL101** 250Hz 9MHz IF CW filter, **FL103** 2.8kHz 9MHz IF SSB filter, **FL223** 1.9kHz 9MHz IF SSB filter, **FL232** 350Hz 9MHz IF CW/RTTY filter, **HM118TN** TTP microphone, **MB62** Mounting bracket for main unit, **MB63** Mounting bracket for control panel, **MB65** Mounting base platform, **MB72** Carrying handle, **OPC025D** DC cord, **OPC581** 11.5' separation cable, **OPC587** 16' separation cable, **OPC589** 8-pin mic jack adapter cable, **OPC598** 23' extension cable for AT180, OPC599 7+8-pin–13-pin adapter, **OPC742** 13-pin cable, **PS125** 25A switching power supply, **RMK706** Remote mounting kit, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP10** Slim-line external speaker, **SP7** Small external speaker, **UT102** Voice synthesizer

IC-746PRO HF/VHF All Mode Transceiver With solar cycle 23 geared up, all hams can take advantage of better HF propagation conditions, night and day! • 160–10M + 6M + 2M • Continuous receive 0.03–60MHz, 108–174MHz • 100W (40W AM) • 32-bit floating point DSP and 24-bit AD/DA converter • AGC loop management • IF filter width and shape variable • All mode signal modulation and demodulation • RTTY demodulator and decoder • Digital twin PBT capability • 100 memories • 10 "memo pad" memories • PSK-31 • Auto antenna tuner and 2 antenna connectors for HF/6M • IF-DSP noise reduction, auto notch and selectable audio peak filters • Noise blanker • Spectrum scope • Twin passband tuning • Triple band stacking register • 2-step preamp • RF speech compressor • Tone squelch and scan • VOX • SmarTune™ variable speed tuning • Auto repeater duplex setting • Quick split • CW pitch control • QSK • 4-memory keyer • QSO serial number generator • Transmit audio monitor • Hand mic with up/down frequency • Requires 13.8V DC @ 20A • 11.3"w x 4.7"h x 12.5"d, 19.6 lbs .... **CALL**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CR338** High stability crystal unit (for PRO version only), **CT17** Level converter, **OPC025D** DC cable, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Spker, **UT102** Voice synthesizer

IC-756PROII HF/50MHz All Mode Transceiver 32 bit floating point DSP digital IF filter with 41 selectable bandwidths, microphone equalizer, manual notch function, TFT 5" color LCD (with selectable colors/schemes), digital twin passband tuning, and includes PSK31. • Continuous 0.03-60MHz rx • 100W (AM 75W) • 101 memories • AGC loop management • RF speech compressor • Twin peak audio filter • DPSN • RTTY demodulator • Digital noise reduction • CW wave form • Spectrum scope • Digital voice memories • Memory keyer and pad • Analog and digital meters • Complete CW features • Dual watch • Triple band stacking register • Quick split function • Antenna tuner • RIT and ΔTX control for main and sub-band • Dual antenna system • VOX • 2-level preamp and 3-level attenuator • Auto TS function • Scanning functions • CTCSS tone encoder • Noise blanker level control • Lower band scope floor noise level • DVR (band scope enabled) • Independent digital and voice mode settings • Disable compression in digital modes • 1/4 tuning steps in digital modes • SSB/CW synchronous tuning • 13.3" w 4.3"h x 11.2"d, 21 lbs **CALL**

Available Accessories

AH2B Whip with mount, **AH2BWHIPONLY** Extra whip only for AH2B, **AH4** 80-6M 120W auto wire antenna tuner, **CT17** Level converter, **HM36** Scanning hand mic, **OPC025D** DC cable, **PS125** 25A switching power supply, **SM20** Stand mic for base station, **SM6** Electret desk mic, **SP20** Speaker with audio filter, **SP21** Speaker, **UT102** Voice synthesizer

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The D-Star system is an off the shelf, 128K open protocol DATA system that combines the analog and digital worlds into a seamless communications network at 1.2 and 10 GHz! Just picture being in your vehicle, helping with emergency communications with the 128K DATA - you can visually communicate what is happening simply by e-mailing a photo or live video. "A picture is worth a thousand words." The power of the D-Star system is limited only by your imagination!

While the ID-1 transceiver is a vital part of a D-Star system, you won't have to wait for a new repeater to be set-up in your area. This rugged little rig operates with current analog 1.2GHz repeaters, plus simplex digital operation with another ID-1. Its operating frequency range is 1240-1300 MHz, with FM and GMSK (Digital) modulation formats. The ID-1 includes all the usual features that you expect - 105 alphanumeric memory channels, CTCSS encode/decode and scanning, *PLUS* full PC control via the USB port (a black box 1.2 GHz radio!). Now for the fun part... the ID-1 supports a 10BASE-T Ethernet cable for the 128K DATA operation! Explore the benefits of wireless high-speed integrated digital connections! See AES - the future begins today!

COMPONENTS OF THE D-STAR SYSTEM

ID-RP1L

AH-1045/1080 Parabola Antenna

These antennas are designed for use with the D-Star System.

ID-RP1L 10 GHz Backbone

The wireless link supporting the RP-1, 1.2 GHz repeater, with a data rate of 10 mbps

ID-RP1

Digital Repeater System

Icom has a complete line of digital repeaters to build out your system, with the RP-1 supporting both digital voice and data.

ID-RP1D 1.2 GHz Data Repeater

ID-RP1VS 1.2 GHz Voice Repeater

RC-24

Control Head

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KENWOOD

HF RADIOS

TS-50S **HF Transceiver** • Covers 160–10M • General coverage receive 500kHz–30MHz • 100W output SSB/CW and FM (AM 25W) • 100 memory channels • Multiple scan functions • Powerful menu system • Dual VFOs • Comprehensive interference reduction • Full and semi break-in • CW reverse mode • All-mode squelch • IF shift • Switchable AGC • 20dB attenuator • Noise blanker • Multi-function hand mic • 7"w x 2.3"h x 9.1"d, 6.4 lbs..... **$649.95**

Available Accessories

AT50 HF external auto tuner, **KPS15** 23A switching power supply, **MC47** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **PG2Y** DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PG4M** 18' extension cable for the AT50, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **TC50** Travel case, **YK107C** 500Hz CW filter

TS-570D(G) **HF Transceiver** • Covers 160–10M • General coverage receive 500kHz–30MHz • Variable output: 5-100W SSB/CW/FM and FSK (AM 25W) • 100 memories with extensive functions • Large amber-colored backlit LCD display • 10-key direct entry • 46 EZ-to-use menu functions • Multiple scanning functions • 16-bit AF-stage DSP VOX • XIT/RIT • IF shift • Noise blanker • All mode squelch • TX audio shaping • Built-in electronic keyer • Full and semi break-in CW • CW message memory • CW auto tune • 38 tone CTCSS encoder and 1750Hz tone • TX audio shaping • Packet and FSK • PC control option • Two antenna ports and packet port • Built-in automatic antenna tuner • Requires 13.8V DC @ 20.5A • 10.6"w x 3.7"h x 10.6"d, 15 lbs • $200 Factory Rebate thru 5/31/03 (U.S. only) **$1089.95**

TS-570S(G) **HF+6M Transceiver** Same as the TS-570D(G), but covers 160–10M plus 6M. 50–54MHz general coverage receiver • $200 Factory Rebate thru 5/31/03 (U.S. only) **$1259.95**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS53** Heavy-duty power supply, **SO2** TCXO unit, **SP23** Speaker, **VS3** Voice synthesizer, **YK88CN1** 270Hz CW filter, **YK88C1** 500Hz CW filter, **YK88SN1** 1.8kHz SSB filter

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TS-870S **All Mode HF Transceiver** • Covers 160–10M • General coverage receive 100kHz–30 MHz • 100W output SSB/CW/FM/FSK (25W AM) • 100 memory channels • Multiple scanning modes • Menu function • Variable AGC • IF digital filter (DSP) • DSP detection • Dual mode noise reduction • Automatic notch filter • Voice equalizer • Speech processor • Transmit equalizer VOX • QSK digital IF filter • DSP noise reduction • IF stage auto-notch beat cancel function • Variable AGC circuit • Built-in electronic keyer • CW pitch control • CW reverse • Radio control software program • Auto antenna tuner on transmit and receive • Built-in antenna tuner dual antenna terminals • External receiver antenna output jack • EZ menu system CTCSS encoder • High quality digital recording option • RS-232C port • Requires 13.8V DC @ 20.5A • 13"w x 4.75"h x 13"d, 25 lbs..... **$2299.99**

Available Accessories

DRU3A Digital recording unit, **KPS15** 23A switching power supply, **MC43S** 8-pin hand mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** 6.5' heavy-duty DC cable, **PS52** Heavy-duty power supply, **SO2** TCXO, **SP31** External speaker, **VS2** Voice synthesizer

FREE ITEMS included with some radios. See Price Guide for details.

TS-2000 **HF/VHF/UHF All Mode Transceiver** Offers 3 platforms: traditional transceiver with full function front panel, high-tech looking "silver box" version (TS-B2000), or computer controlled with software • 100W output on HF, 6M and 2M; 50W on 70cm; 10W on 1.2gHz (optional) • High performance true IF/stage DSP on main band, AF stage DSP on sub-band • Wide band receive • Digital filtering • Dual receive • Satellite ready, with transverter frequency display • Cross band repeat • Built-in auto tuner HF through 6M • Built-in TNC • Built-in RS-232 for computer control • Built-in TCXO (.5PPM) • CTCSS/DCS enc/dec • Electronic memory keyer • Backlit front key panel • 5+1 antenna ports – 2 for HF and 6M, 1 each for 2M, 70cm, 1.2GHz and HF receive **$1699.95**

TS-B2000 **HF/VHF/UHF All Mode Transceiver** Same as the TS-2000 with high-tech "silver box" look. Includes PC control software **$1549.95**

TS-2000X **HF/VHF/UHF All Mode PC Controlled Transceiver** TS-2000 w/1.2GHz **$2299.95**

Available Accessories

ARCP2000 PC/radio control software (included with B2000 model), **DRU3A** Digital recording unit, **KPS15** 23A switching power supply, **MB430** Mobile mounting bracket, **MC43S** 8-pin hand mic, **MC57DM** Lit TTP mic, **MC60A** 8-pin amp desk mic, **MC80** 8-pin electret desk mic, **MC90** 2-head DSP desk mic, **PG2Y** 13' DC cable, **PG2Z** DC cable, **PS53** Heavy-duty power supply, **RC2000** Remote face plate mobile kit, **SP23** Speaker, **VS3** Voice synthesizer

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LOW POWER SINGLE BAND SSB TRANSCEIVERS

No microprocessor – turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise, fading, and QRM • Handheld dynamic mic that complements speech processing • Low drain – 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise, fights QRM, and improves intelligibility • TVI protection (built-in 7 element lowpass filter) • Real S-meter • Reduction drive analog VFO allows scanning the band for signals quickly, then zeros in smoothly • Amplifier jack • 2.5h" x 6.5"w x 6"d

9420X 20M SSB (14.150–14.350MHz)... **$229.99**

9440X 40M SSB (7.150–7.3MHz)..... **$229.99**

9475X 75M SSB (3.75–4.00MHz)..... **$229.99**

Available Accessories:

4110 Portable AC power supply, **4114** Rechargable power pack, **415B** CW adapter (9420X and 9440X only), **971** 200W HF tuner

QRP SINGLE BAND CW TRANSCEIVERS

Easy operation! Sets up in seconds. • 5W CW • Great sensitivity – hot superhet receiver with super-quiet FET post amp stage in the IF filter • Excellent selectivity – tight CW bandwidth crystal ladder filter fights unwanted QRM and noise • Smooth and stable VFO (wide-spaced reduction drive VFO capacitor) • True RIT • Recovery AGC • Built-in 3" speaker • Low power drain – 50mA on receive and 1.2A peak on transmit • Semi-QSK – set adjustable hold transmit/receive switching to suit your normal sending speed or set for full QSK during contests • Compact • Four models below

9015 5W, 15M (21.000–21.200MHz)..... **$169.99**

9020 5W, 20M (14.000–14.075MHz)..... **$169.99**

9030 5W, 30M (10.100–10.150MHz)..... **$169.99**

9040 5W, 40M (7.000–7.150MHz)..... **$169.99**

Available Accessories:

1772 Portable 20M dipole, **1774** Portable 40M dipole, **27** Handle for CW station, **4110** portable AC power supply, **4114** Rechargable power pack, **412** Plug-in Curtis keyer, **726** Plug-in audio filter, **971** 200W portable antenna tuner/meter

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Get more power, wider RX, and a whopping 500 memory channels with this space saving performer.

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†Cellular frequencies blocked. Unblocked versions available to FCC approved users. All specifications are subject to change without notice or obligation.

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8708 Micro ATV Transmitter Transmits a high quality amateur television audio and video signal on 433.97MHz (cable channel 58, 59 or 60). Plug in an antenna and a video source (video camera, camcorder, or VCR). With a TV set, or down converter, tuned to the appropriate channel, you'll have a complete low power ATV video station. Puts out 50 to 100mW signal, capable of transmitting up to 1.8 miles with a 3-element beam. By using a suitable UHF amplifier, enjoy ATV communications over an extended range with other ATV ham operators. Requires 9V battery or other source..... **$149.99**

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SGC

HF SSB TRANSCEIVERS

SG-2000 (04-01) HF SSB Global Radio Telephone With full frequency coverage for voice and data. Talk anywhere in the world on the HF Ham bands, receive and send time sensitive documents, decode UPI transmissions, get latest weather reports or listen to shortwave broadcasts. Also, great for marine use. It can be fully computer controlled via a standard RS-232 connector. The front panel can also be used as a remote head terminal (up to 8 remote heads can be utilized). • 1.8–30MHz tx, 500kHz–30MHz general rx • 150W • Modes: A3A, A3H, A3J and CW in LSB/USB, true AM in receive mode and data • 100 field-programmable and 644 factory-programmed ITU & data channels • 100 programmable scan channels • 13.6 VDC @ 16A • 4.75"h x 10"w x 15"d, 12 lbs..... **$1599.99**

Available Accessories:
0411 Standard remote head/bracket/20' cable, **0412** Remote kit/swivel bracket/cable, **0415** Remote mobile head (memory channels only), **0422** Powertalk remote head, **5182** Fan kit for continuous transmit, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5253** CA-230 antenna coupler cable, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

PowerTalk™ SG-2000 (04-10) HF SSB Transceiver With the PowerTalk™ SG-2000, you'll intercept more weak HF signals, increase signal clarity and eliminate unwanted noise. You'll hear SSB signals clearer and easier than ever before. Combines SGC's exclusive ADSP™ (Automatic Digital Signal Processing) and SNS™ (Signal Noise Subtraction). A DSP command center with a high performance spinner knob and bright LED indicators. Includes all of the outstanding features of the SG-2000: 644 Ham and ITU discrete frequencies • 150W • Programmable memory • Large LCD **$1849.99**

Available Accessories:
0412 Remote kit/swivel bracket/cable, **0422** Powertalk remote head, **5234** RS232 interface, **5251** CA-1 HV feed wire, **5253** CA-230 antenna coupler cable, **5254** CA-2000 remote head cable, **5261** PSC/12-1 12' power supply cable/1 plug, **5262** PSC/12-2 12' power supply cable/2 plugs, **5304** PS-30 30/40A peak unregulated power supply, **5305** PS-50 50/70A peak unregulated power supply

SG-2020 (05-01) Compact HF SSB/CW Transceiver Small, but fully microprocessor-controlled and loaded with "Big Rig" features. Take it and use it anywhere – fixed, mobile, portable, aviation or boating. Operating from 12V DC, it has the lowest current consumption on the market. • 1.8–29.7 MHz amateur bands • 400kHz–29.7MHz general coverage receive • SSB/CW modes • 0–20W PEP output, ad-justs down to 1W for QRP • 40 memories • Backlit LCD display • Built-in IAMBIC "B" mode electronic keyer • Noise blanker • RF speech processor and clipping • SWR metering and voltage indicator • SPLIT, RIT, XIT • AF bandpass tuning • Handheld, dynamic microphone • Requires 13.8V DC @ 3A • 2.75"h x 6"w x 7.5"d, 4.5 lbs . **$675.99**

SG-2020 (05-02) Same radio as above with 20 memories and the addition of ADSP™. The added PowerClear™ DSP software provides superior tone rejection (better than 57dB) and dynamic noise rejection (better than 18dB) ..... Closeout **$795.99**

SG-2020 (05-04) An ADSP2™ version of the 0502 above **$795.99**

Available Accessories:
5422 SG-239 200W SmartTuner

FREE ITEMS included with some radios. See Price Guide for details.

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HF TRANSCEIVERS

FT-100D Ultra-Compact HF/VHF/UHF All Mode Transceiver Widely acclaimed for outstanding performance and flexibility. Wide frequency coverage and versatile – a great compact mobile, vacation or expedition radio. Covers 160–6M, 144-148MHz, 430–450MHz • General receive: 100kHz–30MHz, 30–970MHz (cell blocked) • 100W output on HF/6M; 50W on 2M; 20W on 430MHz • DSP system enhances signal-to-noise ratio via bandpass, noise reduction and automatic notch filters • Dual VFOs • Electronic keyer built-in • 349 memories, including 4 Quick Banks • SmartSearch™ auto memory channel loading • Improved high-quality speaker • 500Hz, 8-pole crystal filter (CW) • High stability reference oscillator • CTCSS decode • Bright LCD with multi-function display • VOX • Requires 13.8V DC @ 22A • 6.3"w x 2.1"h x 8"d ..... **CALL**

Available Accessories:
ATAS100 HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit/use with mount, **CT39** Packet cable, **CT58** Band data cable, **CT62** CAT interface cable, **CT69** 6-pin mod/8-pin mic jack, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL5** Phone patch unit, **MLS100** Mobile speaker, **MMB62** Remote control panel bracket, **MMB67** Quick release bracket, **SP6** External speaker, **T9021925** Extra DC cord, **XF117A** 6kHz AM filter, **XF117CN** 300Hz CW filter, **YH77STA** Stereo headphone, **YSK100** Separation kit

FT-817 HF/VHF/UHF Backpack Transceiver Self-contained and low power for portability. • 160–10M, 50MHz, 144MHz, 430-450MHz, plus Alaska Emergency Channel (5167.5kHz) tx • 100kHz-56 MHz, 76-154 MHz, 420-470MHz, plus AM aircraft rx • 200 alphanumeric memories (home channels and band-limit) • SmartSearch™ memory loading • 5W SSB/CW/FM (13.8V external DC), 1.5W AM, 2.5W SSB/CW/FM (9.6V NiCad pack or 8 AA's, includes internal alkaline case), 0.7W AM, up to 5W SSB/CW/FM power programmable via menu (NiCad or AA's) • USB, LSB, CW, AM, FM, W-FM, AFSK, packet • RTTY, PSK31-U, PSK31-L, user-defined USB/LSB • 2-color, multi-function LCD • Meters ALC, power output, SWR, modulation • RF gain/squelch control • Noise blanker • Attenuator • Dual VFOs, split capability, IF shift, and RIT • Electronic keyer • VOX • Auto repeater shift • CTCSS/DCS • Front/rear antenna jacks • 3 accessory jacks • PC control capability • 5.31"w x 1.5"h x 6.5"d, 2.6 lbs ..... **CALL**

Available Accessories:
W4ROTT1 One-touch tune, **CSC83** Soft case, **CT39** Packet cable, **CT62** Cat interface cable, **EDC6** DC cord, **FNB72** 9.6V 1000ma NiCad, **MH36E8J** TTP mic, **MLS100** Mobile speaker, **NC72B** Wall charger, **TCXO9** TCXO unit, **YF122C** 500Hz Collins CW filter, **YF122CN** 300Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter

YAESU

FT-840 Compact High Performance HF Transceiver Blending high performance digital synthesis techniques, convenience and affordability from previously successful radios, the FT-840 adds a choice of two optional remote automatic antenna tuners and a wealth of convenient functions. • Direct Digital Synthesis • Covers 160–10M with 50 kHz–30MHz general coverage receiver • 100W output (25W AM) • 100 memory channels • Low noise FET front end • Two direct digital synthesizers (DDSS) and magnetic rotary encoder for smooth tuning • Twin band-stacking VFOs • IF shift • Reverse CW • FM repeater with auto 10M repeater offset • Selectable CTCSS • Requires 13.8V DC @ 20A • 9.2"w x 3.6"h x 9.5"d, 9.9 lbs ..... **CALL**

Available Accessories:
FC10 Extra coax fed auto tuner, **FC800** Extra long wire auto tuner, **FIF232C** RS-232 interface, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MLS100** Mobile speaker, **MMB20** Mobile mount, **SP6** External spker, **TCXO4** TCXO unit, **T9018320** DC cord, **YF112A** 6kHz AM filter, **YF112C** 500Hz CW filter, **YH77STA** Stereo headphone

FREE ITEMS included with some radios. See Price Guide for details.

FT-847 HF/VHF/UHF All Mode Transceiver All mode operation on HF, 50MHz, 144MHz, and 430MHz with full satellite capability • Covers 160–6M, 2M, 70cm and 5.1675MHz (Alaska emergency channel) • General receive: 100kHz–30MHz, 36–76MHz, 108–74MHz, 420–512 MHz • 100W output on HF/6M (25W AM); 50W (12.5W AM) on 2M/430 MHz • High resolution 0.1Hz tuning steps • Shuttle-Jog™ tuning ring • Direct frequency keypad entry • Low noise VHF/UHF preamps built-in • Advanced DSP system enhances signal-to-noise ratio via sophisticated bandpass, noise reduction and automatic notch filters • Cross band full duplex operation • Normal/reverse tracking and dedicated satellite memories • 1200/9600 bps packet ready • CW sidetone/pitch control • Built-in CTCSS/DCS • Four antenna jacks on rear panel • Requires 13.8V DC @ 22A • 10.2"w x 3.4"w x 10.6"d, 14.4 lbs ..... **CALL**

Available Accessories:
ATAS100 HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit, **CT39** Packet cable, **CT61** Amp interface cable, **FC20** Automatic antenna tuner, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **FVS1A** Voice synthesizer, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **MH36D8** DTMF mobile microphone, **MMB66** Mobile mounting bracket, **SP8** External speaker with filters, **T9018320** DC cord, **YF115C** 500Hz CW/Collins Mechanical filter, **YF115S02** 2.5kHz SSB/Collins Mechanical filter, **YH77STA** Stereo headphone

FT-920 HF + 50MHz All Mode Transceiver Direct digital frequency synthesis • Covers 160–6M with 100kHz–30MHz, 48–56MHz general receive • Power output adjustable up to 100W (25W AM) • Multi-function tuning dials and keyboard frequency entry • 127 memories with alphanumeric labels • Multiple scanning functions • Dual watch system • Quick memory bank (QMB) instant memory system • Built-in high-speed antenna tuner, digital voice recorder and electronic memory keyer • DSP speech processor, auto notch filter, noise reduction and VOX control • CW spot and pitch controls IF shift • QSK and built-in electronic keyer • Noise blanker • Dual antenna jack plus receive-only antenna jack • ShuttleJog™ control • Independent RX preamps for high and low bands • OmniGlow™ LCD with twin frequency displays • RS-232 computer control interface • Requires 13.8VDC @ 22A • 15.2"w x 5.3"h x 12.5"d, 24 lbs ..... **CALL**

Available Accessories:
FM1 FM unit, **FP1023** 23A switching power supply with fan, **FP1030A** 25A power supply with meters, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP8** External speaker with filters, **TCXO7** TCXO unit, **T9018320** DC cord, **YF116A** 6kHz AM filter, **YF116C** 500Hz CW filter, **YH77STA** Stereo headphone

FT-897 HF/VHF/UHF Multi-Mode Portable/Base Self-contained transceiver able to operate without external power supply! Using the optional 13.2V @ 4500mAh NiMH battery pack, operates at 20W on all bands except 430MHz (10W). Two batteries may be installed simultaneously giving up to 8 hours of use. • 100W (HF/50MHz), 50W(144MHz) and 20W (430MHz) on external 13.8V DC • Adjustable down to 5W • SSB/CW/AM/FM and digital modes • Large-diameter main tuning dial, similar to a base station • Built-in DSP • Selectable tuning steps (2kHz/4kHz) • Easy receiver offset tuning (clarifier) • Scrolling front panel, multi-function keys with instant "hoy key" switching • RS-232 port • Built-in keyer • Rugged, aluminum, die-cast chassis • Thermostatically-controlled twin cooling fans • Optional HF/50MHz automatic antenna tuner (external mount) • 7.9"w x 3.14"h x 10.3"d, 8.6 lbs ..... **CALL**

Available Accessories:
ATAS100 HF/6/2/430 motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit; use w/mt, **CD24** 4-hour charge adapter, **CT39** Packet cable, **CT62** Cat interface cable, **FC30** Antenna tuner, **FNB78** 4.5ah NiMH, **FP30** Internal power supply, **MD100A8X** Desk mic with tone control, **MD200A8X** Dlx high fidelity desk mic, **MH36E8J** TTP mic, **MLS100** Mobile speaker, **MMB80** Mting bkt, **PA26B** Charger for CD24, **SP6** External speaker, **TCXO9** TCXO unit, **T9018320** DC cord, **YF122C** 500Hz Collins CW filter, **YF122CN** 300Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter, **YH77STA** Stereo headphones

FT-857 Ultra-compact, HF/VHF/UHF 100W All-Mode Mobile Transceiver Blends the leading-edge technologies of the FT-897 and MARK-V into the world's smallest full-power HF multi-mode transceiver. Unique ergonomics deliver unmatched ease of use with an ultra-compact design featuring a large, main tuning dial. • 100W HF/6M, 50W 2M, 20W 70cm • Transmits on HF, 50MHz, 144MHz and 430MHz, plus 0.1–56MHz, 76–108MHz, 118-164MHz and 430-470MHz receive • 200 memories with 10 memory groups • Enhanced performance with optional DSP board • Large, multi-color dot matrix display • IF shift and noise blanker • IPO • AGC • CTCSS/DCS • Auto repeater shift • Smart-Search™ • Spectrum scope • ARTS™ • Optional remote-head operation and remote control microphone • 6.1"w x 2.0"h x 9.2"d, 4.6 lbs ..... **CALL**

Available Accessories:
ATAS100 HF/6M/2M/430MHz motorized antenna, **ATAS120** HF/6/2/430 antenna, **ATBK100** ATAS100 base kit, **CT39** Packet cable, **CT58** Band data cable, **CT62** Cat interface cable, **DSP-2** DSP unit, **FC30** External antenna tuner, **FP1023** 23A switching power supply, **FP1030A** 25A power supply with meters, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk microphone, **MH36E8J** TTP microphone, **MH59A8J** Remote control TTP microphone, **MLS100** Mobile speaker, **SP6** External speaker, **TCXO9** TCXO unit (0.5ppm), **YF122C** 500Hz Collins CW filter, **YF122CN** 300Hz Collins CW filter, **YF122S** 2.3kHz Collins SSB filter, **YH77STA** Stereo headphones, **YSK857** Separation kit

FT-1000D 200W HF All-Mode Transceiver Judged "best overall" by top DX'ers worldwide, the FT-1000D delivers optimum receiver performance and real "muscle" on transmit. With a front panel featuring two flywheel weighted tuning knobs and two large displays, it's a perfect blend of ergonomics and electronics. Hear signals you've never heard before. • Direct Digital Synthesis (DDS) • Covers 160–10 meters with 100kHz–30MHz general coverage receive • 100 memory channels store frequency, mode, and filter selection • Up to 200W power output (AM 50W) • True cross-band dual receive (dual receiver front ends and IFs), two large tuning knobs • Front panel receive antenna switch for beverage or loop antenna • Built-in antenna tuner with 32 memories • CW spot and two CW key jacks for maximum convenience • CAT system for computer control • Built-in 110/220VAC power supply • 5.9"h x 16.4"w x 14.8"d, 31lbs ..... **CALL**

Available Accessories:
DVS2 Voice recording module, **FIF232C** RS-232 interface, **LL5** Phone patch unit, **MD100A8X** Desk mic with tone control, **MD200A8X** Deluxe high fidelity desk mic, **SP5** External speaker, **XF455MC** 600Hz CW filter, **YF110CN** 250Hz CW filter/XFF, **YH77STA** Stereo headphone

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Back in 1973, Kenwood introduced the first affordable HF radio to the world, the legendary TS-520. Today 27 years later, the Kenwood TS-570DG HF and the TS-570SG with 6 Meters are by far the most popular HF and HF+6 transceivers on the market. The truth is that Kenwood has built and sold more HF Amateur radios than any other RF product manufacturer…ever! In 27 years, there have been several advancements in Amateur radio: solid state circuits, digital displays for quicker and more accurate tuning, built-in tuner, and Digital Signal Processing (DSP) for cleaner signals unheard of with the TS-520. Ask any experienced Ham which HF radios have the best audio…the answer has always been Kenwood! Whether a CW contester, DX chaser, or a new upgraded General Class Amateur, Kenwood has an HF radio for you. Don't be fooled by big boxes, high price tags, complex operation, and broken promises of performance.

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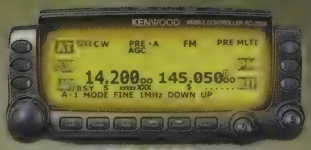

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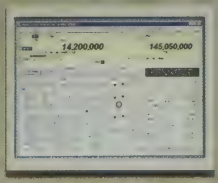
At home, get PC operation versatility for saving different operation profiles.



ARCP-2000
PC Radio Control Program

FREE Memory Control Program MCP software available via Internet

The Kenwood TS-2000 system offers Amateurs the versatility of operation that has never been achieved. This Multi-band/Multi-mode transceiver offers several different operation methods that provide Amateurs with both high performance not available on competitive models as well as 4 distinct methods to operate. The TS-2000 is available with a full functioning front panel or as a "high tech" self enclosed TS-B2000 model. Both units can also utilize the 1.2 GHz UT-20 module for the widest range of transmit capabilities. Both units can be operated with the ARCP-2000 Radio Control Software or the unique, easy to use RC-2000/TM-D700A remote controller. Older TM-D700A displays can be modified to operate the TS-2000 series also. If that wasn't enough, Kenwood offers the capability to use the popular TH-D7AG handheld to operate HF and 6M via SkyCommand II.* The TS-2000 also is the World's First HF radio that has PC Flash-ROM capability, which means in the future your TS-2000 is self-upgradeable, no new versions or models to buy. It's easy to see the TS-2000 all adds up to the transceiver with features designed for the future, available today.

TH-D7AG
SkyCommand

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Kenwood Corporation
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INTERNET
Kenwood Website
http://www.kenwood.net
Kenwood Information
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03ARD-2232 #022403

HF RADIOS

Manufacturer	ALINCO*	ALINCO	ICOM*	ICOM*	ICOM	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	KENWOOD	KENWOOD	MFJ	MFJ
Model	DX-70TH	DX-77T	IC-703	IC-706MkIIG	IC-718	IC-746PRO	IC-756PROII	TS-2000, TS-B2000 TS-2000X	TS-50S	TS-570D(G)	TS-570S(G)	TS-870S	9015	9020
Bands	HF, 6M	HF	HF	HF, 6M, 2M, 70CM	HF	HF, 6M, 2M	HF, 6M	HF, 6M, 2M 70CM, 1.2gHz	HF	HF	HF, 6M	HF	15M	20M
Rx Range (MHz)	.15-30, 50-54	.5-30	.03-30	.03-200, 400-470	.03-30	.03-200	.03-60	.03-60, 142-152 420-450 1240-1300*	.5-30	.5-30	.5-30, 6M	.1-30	21-21.2	14-14.075
Power (SSB/CW/FM)	100W HF/6M	10-100W	10/5W	5-100 HF/6M 5-50 2M 2-20 70CM	5-100W[7]	5-100 HF/6M/2M	5-100	100W HF/6/2M 50W 70CM 10W 1.2gHz*	100W	5-100W	5-100W HF/6M	100W	5W CW	.5W CW
Power (AM)	40W HF/6M	4-40W	2/4W	2-40W HF/6M 2-20W 2M 2-8W 70CM	2-40W	5-40W HF/6M/2M	5-40	25W HF/6/2M 12.5W 70CM 2.5W 1.2gHz*	5-40W	5-25W	5-25W	25W	No	No
DSP	No	No	Yes	Yes	Optional	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Tuner	No	No	Yes	Optional	Optional	Internal	Internal	Yes	No	Yes	Yes	Yes	No	No
Keyer	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Speech Readout	No	No	Optional	Optional	Optional	Optional	Optional	Yes	No	Optional	Optional	Optional	No	No
VOX	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No
Power Requirements	12VDC 20A	12VDC 20A	9-15.8VDC 2/3A	12VDC 20A	12VDC 20A	12VDC 20A	12VDC 23A	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 20.5A	12VDC 12A	12VDC 12A
Antenna ports	2[1]	1	1	2[3]	1	3[4]	2	5	1	2	2	2	1	1
Computer Port	No	Optional	Yes	Optional	Optional	Optional	Optional	Yes	Optional	RS-232	RS-232	RS-232	No	No
Height (in.)	2.3	3.7	2.3	2.3	3.75	4.7	4.3	3.75	2.4	3.8	3.8	4.8	2.5	2.5
Width (in.)	7	9.8	6.56	6.6	9.44	11.3	18.3	10.625	7.1	10.6	10.6	13	6.5	6.5
Depth (in.)	9	9	4.87	7.9	9.40	12.5	11.2	12.5	9.2	10.7	10.7	13.1	6	6
Weight (lbs.)	6	8.4	4.4	5.5	8.4	19.5	21	17.19	6.4	15	15	25.4	2	2

Manufacturer	MFJ	MFJ	MFJ	MFJ	MFJ	SGC*	SGC*	SGC	YAESU*	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU	YAESU
Model	9030	9040	9420X	9440X	9475X	04-01 SG-2000	04-10 POWERTALK	05-01/02/04 SG-2020	FT-100D	FT-817	FT-840	FT-847	FT-857	FT-897	FT-920	FT-1000D	FT-1000MP MKV	MK V FIELD
Bands	30M	40M	20M	40M	75M	HF	HF	HF	HF, 6M 2M, 70CM	HF, 6M 2M, 70CM	HF	HF, 6M 2M, 70CM	HF, 6M 2M, 70CM	HF, 6M 2M, 70CM	HF, 6M	HF	HF	HF
Rx Range (MHz)	10.1-10.15	7-7.15	14.15-14.35	7.15-7.3	3.75-4	.5-30	.5-30	1.8-29.7	.1-961[6]	.1-56 76-154 420-470	.1-30	.1-30, 36-76 108-174 420-512	.1-56, 76-108 118-164 420-470	.1-56, 76-108 118-164 420-470	.1-30 48-56	.1-30	.1-30	.1-30
Power (SSB/CW/FM)	5W CW	5W CW	12W SSB	12W SSB	12W SSB	150W SSB/CW	150W SSB/CW	0-20W SSB/CW	100W HF/6M 50W 2M 20W 70CM	5W	100W[2]	5-100W HF/6M 50W 2M/70CM	100W HF 50W 2M 20W 70CM	100W HF/6M[8] 50W 2M[8] 20W 70CM[8]	10-100W[2]	20-200W	200W	100W
Power (AM)	No	No	No	No	No	40W	40W	No	25W HF/6M 12.5W 2M 5W 70CM	1.5W	25W	25W HF/6M 12.5W 2M 12.5W 70CM	25W HF 12.5 2M 5W 70CM	25W HF/6M[9] 12.5W 2M[9] 5W 70CM[9]	2.5-25W	50W	50W	25W
DSP	No	No	No	No	No	No	Yes	No	Yes	No	No	Yes	Optional	Yes	Yes	No	Yes	Yes
Tuner	No	No	No	No	No	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Keyer	No	No	No	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Speech Readout	No	No	No	No	No	No	No	No	No	No	No	Optional	No	No	No	No	No	No
VOX	No	No	No	No	No	No	No	No	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Power Requirements	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 1.2A	12VDC 30A	12VDC 30A	12VDC 5A	13.8VDC 22A	12VDC 2A	13.8VDC 22A	13.8VDC 22A	12VDC 22A	13.8VDC 22A	13.8VDC 22A	125VAC	FP29 30V (supplied)	125VAC 13.8VDC
Antenna ports	1	1	1	1	1	1	1	1	2[3]	2	1	4[5]	2	2	2	1	2	2
Computer Port	No	No	No	No	No	Optional	Optional	Optional	Optional	Yes	Optional	RS-232	Optional	RS-232	Optional	Optional	Yes	Yes
Height (in.)	2.5	2.5	2.5	2.5	2.5	4.6	4.6	2.75	2.2	1.5	3.7	3.4	2	3.14	5.3	5.9	5.4	5.3
Width (in.)	6.5	6.5	6.5	6.5	6.5	10	10	6	6.3	5.3	9.4	10.2	6.1	7.9	16.1	16.4	16.4	16
Depth (in.)	6	6	6	6	6	15	15	7.25	8	6.5	9.6	10.6	9.2	10.3	12.4	14.8	13.9	13.7
Weight (lbs.)	2	2	2	2	2	12	12	2.5	6.6	2.6	12	14.4	4.6	8.6	30.8	51	31	33

*Remotable control head
*Optional module required for TS-2000 and B versions
(1) One port for HF; one port for 6M
(2) Optional board required for FM
(3) HF/6M one port, 2M/440MHz second port
(4) Two ports for HF, one dedicated for 2M
(5) Port per band. HF/6M can be combined
(6) Cell blocked
(7) No FM
(8) On internal batteries: 20W (10W on 70cm)
(9) On internal batteries: 5W (2.5W on 70cm)

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Available Accessories:
DVS2 Voice recording module, **FH1** Remote control keypad, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tome control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

MK V FIELD **Leading-Edge Technology, 100W Self-Contained Design** 160-10M tx (amateur only), 100kHz-30MHz rx • All modes • Adjustable up to 100W (25W AM) • Selectable Class-A 25W SSB output • Self-contained 117/200VAC power supply, 13.8VDC optional • Built-in TCXO • Dual receive with independent AGC systems • Integrated digital bandwidth tracking • Enhanced DSP • Digital SSB mic equalizer and RF speech processor • Selectable digital modulation/demodulation • Digital autonotch • Variable RF front-end filter • Selectable SSB pattern-contour filters • Three RF preamp modes +IPO (Direct Mixer Feed) • IF filter chain includes 10-pole Collins mechanical filter • Built-in antenna tuner • Electronic memory keyer • Outstanding CW features • Ergonomic, multi-function shuttle jog dial • 16"w x 5.3"h x 13.7"d, 33 lbs..... **CALL**

Available Accessories:
DVS2 Voice recording module, **FH1** Remote control keypad, **FP29** Power supply for FTV1000, **FTV1000** 200W 6M transverter, **LL7** Phone patch unit for SP8, **MD100A8X** Desk mic with tome control, **MD200A8X** Deluxe high fidelity desk mic, **MH31B8** Extra hand mic, **SP8** External speaker with filters, **TCXO6** Deluxe TCXO unit, **YF110CN** 250Hz CW filter/XFF, **YF110SN** 2kHz SSB filter/XFD, **YF114CN** 250Hz CW second IF main receive, **YF114SN** 2kHz SSB second IF main receive, **YF115C** 500Hz CW/Collins Mechanical filter, **YH77STA** Stereo headphone

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The AR-147+, 247 and 447 include features expected in a modern mobile including AM air receive (147+ only), direct frequency entry, lots of memory channels and more. Both CTCSS and DCS to ensure compatibility with all repeater systems. • MARS/CAP capable • 80 multi-function memories plus call • Auto repeater offset • 9 DTMF autodialer memories + redialer • Programmable band, memory scan and frequency/channel display • DTMF paging • Dual frequency watch • PC programmable

AR-147+ **2M Mobile** Transmit: 144–148MHz • Receive: 118–171MHz • Three power settings (60, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs..... **$149.99**

AR-247 **220MHz Mobile** Transmit: 222–225MHz • Receive: 216–229MHz • Three power settings (30, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs..... **$209.99**

AR-447 **70 Centimeter Mobile** Transmit: 430–450MHz • Receive: 420–460MHz • 3 power settings (35, 10, 5W) • 1.5" x 5.5" x 6.25", 2.7lbs. **$209.99**

Available Accessories:
MTGBKT Mobile bracket, **PROG47** PC programming software and cable, **PWRCORD** DC cable

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SINGLE BAND MOBILES

DR-135TP **2M Mobile/Base Voice/Data Transceiver** 144–148MHz tx; 118–135.995MHz (AM aircraft), 136–173.995MHz rx • 50/10/5W • Wide or narrow FM • 1200/9600bps TNC • 100 alphanumeric memories, 1 call • 7-character, 3-mode display • CTCSS/DCS, 4 Euro bursts • Backlit DTMF mic • 10 autodialer memories • Multi scan modes • Front panel GPS input • Rear panel PC connection • Ignition key on/off • Theft alarm • 13.8V DC @ 11A • 5.58"w x 1.57"h x 6.83"d, 2.3 lbs .. **$269.99**

DR-135T Same, but no TNC..... **$169.99**

DR-235T Same, except covers 222–224.995MHz tx, 216–279.995MHz rx • 25W/10/5W ... **$249.99**

DR-435T Same as DR-135T, but covers 430–450 MHz tx, 400–470MHz rx • 35W..... **$259.99**

Available Accessories:
EDC37 DC cable, **EDC43** Cigarette lighter cable, **EJ40U** Digital board, **EJ41U** 1200/9600 TNC (T-series only), **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

DR-M06TH **6M FM Transceiver** Covers 50-54MHz • FM, selectable 20/1W output • 100 memories plus CALL channel • 50 tone CTCSS encoder • Programmable repeater offset for each memory channel • Time-out-timer • 13.8V DC @ 3A • 5.5"w x 1.5"h x 4.5"d, 1.6 lbs • Includes DTMF hand mic **$259.99**

Available Accessories:
HK130 Hardware kit, **MB130** Mntg brkt, **PC15B** DC cable

DUAL BAND MOBILES

DR-605TQ **FM Dualbander** 144–147.995MHz, 430-449.995MHz tx; 136–173.995MHz, 420–470 MHz rx • 50/10/5W (VHF), 35/10/5W (UHF) • 50 memories, 1 call per band • Cross band repeat, full duplex • Dual VHF/UHF only displays • Multi scan functions • CTCSS encode, 3 European tone bursts • Twin volume controls • Packet compatible • Cable cloning • Internal antenna duplexer • 13.8V DC @ 11.5A • 5.58"w x 1.57"h x 6.8"d, 2.4lbs .. **$339.99**

Available Accessories:
EDS8 EMS14–DR605 adapter, **EMS14** Desk top mic, **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

DR-620T **Twin Band Mobile** Operates on 2M and 70cm. Covers 144-147.995, 430-449.995MHz transmit, and receives 108-173.995, 335-480MHz and 87.5-108MHz (WFM). AM Aircraft band reception and MARS modifiable. VHF/UHF operation includes V/U, V/V and U/U modes (Not capable of full-duplex V/U,V/V,U/U operation). • 200 memories • 50/10/5W VHF, 35/10/5W UHF • Built-in duplexer • Large, alphanumeric display • Selectable display color illumination • Removable control head can be remote mounted or allow transceiver to be inverted with separation kit • Optional 1200/9600 bps packet • Direct GPS input for APRS mobile tracking (optional) • Digital voice communications (optional) • Illuminated DTMF mic allows direct VFO frequency entry and remote control • CTCSS/DCS encode/decode (4 tone bursts) • Programmable VFO and memory scan including timed, busy and skip modes • Time-out timer • Busy-channel lock out • Cable clone • Temperature-compensated crystal oscillator • Ignition key activated, power on/off feature • Power supply voltage display • Theft alarm • 5.5"w x 1.6"h x 7.3"d, 2.2 lbs..... **$339.99**

Available Accessories:
EDCS9 Separation kit, **EJ47U** Digital board, **EJ50U** TNC unit, **HK130** Hardware kit, **MB130** Mounting bracket, **PC15B** DC cable

ICOM

SINGLE BAND MOBILE

IC-2100H-25N **Rugged 2M Transceiver** Icom's best performer against IMD. Straight-forward operation • 50/10/5W • 144-148MHz transmit • 136-174 MHz receive • One-touch button operation • 113 memories • Dual, alphanumeric, selectable green/amber backlit display • Backlit TTP mic with 2 programmable keys • One-piece, diecast aluminum chassis • Adjustable attenuator • CTCSS tone enc/decode (50 tones) • Tone scan • Auto repeater with busy lockout • Priority watch • Cloning capability • Mounting bracket • Built to military spec for shock and vibration • Requires 13.8V DC @ 12A • 5.5"w x 1.6"h x 7.1"d, 2 lbs., 10 oz..... **CALL**

Available Accessories:
BC96 Microphone holder, **CSW2100** Windows software and cable, **CS2100** DOS cloning software, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **MB17A** Quick release bracket, **MB28H** Mobile bracket, **OPC346** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' microphone extension cable, **SP10** Slim-line external speaker

IC-V8000 **2M FM Transceiver** 75W output power – a first! • TX 144-148, RX 136-174MHz • 207 alphanumeric memory channels including 1 call channel, 6 scan edges • Weather alert and weather channel scan • DMS scan system • Each memory channel stores a 6 character name, tone frequency, skip info, and more • Priority watch • CTCSS/DTCS • Dynamic Memory Scan, customize/manage memory banks • DTMF encode and pager function capability • 10 DTMF memory channels with up to 24 digit DTMF codes • Versatile cloning from transceiver to transceiver or PC to transceiver • Front mounted speaker • One-piece, die-cast, rugged, aluminum chassis • Large cooling fan on the back and large cooling fins • Selectable green or amber display • Includes HM-133V remote control microphone • 5.9"w x2"h x 5.9"d, 2.22 lbs..... **CALL**

Available Accessories:
CSV8000 Windows software, **OPC1132** 9.8' DC cable, **OPC347** 23' DC cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC474** Radio-to-radio cloning cable, **OPC478** PC cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker, **UT108** DTMF decoder unit, **V8000MMB** Mobile bracket

FREE ITEMS included with some radios. See Price Guide for details.

DUAL BAND MOBILES

IC-207H **2M/440MHz Super Compact Dual Bander** • 50W (VHF), 35W (UHF) • Transmit 144–148MHz and 440–450MHz • VHF wideband receive: 118-174MHz (includes Air Band) • 162 memory channels • Works one band at a time. Switch between bands with a touch of the large blue button • 9600 baud packet ready • CTCSS enc/decode • Auto repeater function • Multi-function backlit remote control microphone • Optional wireless microphone • 4 power settings per band • Big dials; big keys; big, bright display – easy-to-use on the GO! • Cloneable with optional software and cable • 5.5"w x 1.6"h x 8.4"d, 3.1 lbs..... **CALL**

Available Accessories:
BC96 Microphone holder, **CSW207/2710** Windows software, **CS207** DOS programming software, **EX1759** Infrared receiver, **HM90A** Wireless microphone, **MB17A** Quick release bracket, **MB28H** Mobile bracket, **MB58** Remote controller bracket, **MB65** Mounting base platform, **OPC346** 9.8' DC cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC589** 8-pin mic jack adapter cable, **OPC600** 11.5' separation kit, **OPC601** 23' separation kit, **OPC646** Programming cable, **OPC647** 8.2' mic extension cable, **RMK3** MB58/OPC600/OPC647 package, **SP10** Slim-line external speaker

IC-2720H **2M/70cm FM Transceiver** Advanced dualband mobile providing VHF/VHF, UHF/UHF simultaneous receive capability along with VHF/UHF full duplex. • Wide/narrow channel spacing • 144-148, 430-450MHz tx • Extra wideband (cell blocked) receive 118-550MHz (left side), 118-174, 375-550, 810-999MHz (right, cell blocked); includes weather, WX alert, and Air bands • 212 memories (10 banks), 2 call channels and 10 scan edges • Auto repeater function • 50/35W (2M/70cm) • Separate control head • Full function, backlit remote control microphone with "hot keys" • Wide viewing angle • In-dependent controls for each band • 12 DTMF memories (24 digits) • User-selectable amber/green display with adjustable brightness • CTCSS/DTCS enc/decode with tone scan and pocket beep • Dynamic memory scan • Control head and main unit microphone jacks • 1200/9600 bps 6-pin packet terminal • PC programmable (optional software and cable) • 11.5' separation cable included • 13.8V DC @ 12A • 5.5"w x 2" h x 1.1"d, 5.29 oz. (control head), 5.5"w x 1.6 "h x 7.4"d, 3.08 lbs. (main unit) **CALL**

Available Accessories:
CS2720 Windows/DOS cloning software, **MB17A** Quick release bracket, **MB65** Mounting base platform, **MB84** Remote controller bracket, **MB85** Combination bracket, **OPC1132** 9.8' DC cable, **OPC1156** 11.5' separation cable, **OPC347** 23' DC power cable, **OPC440** 16.4' mic extension cable, **OPC441** Speaker extension cable, **OPC478** PC RS232C cable, **OPC478U** PC USB cable, **OPC589** 8-pin mic jack adapter cable, **OPC647** 8.2' mic extension cable, **SP10** Slim-line external speaker

KENWOOD

SINGLE BAND FM MOBILE TRANSCEIVERS

Fully loaded with features and built to demanding MIL-STD specifications. Supremely user-friendly. • High RF output • 61 multi-function memory channels plus 1 call channel • Memory Name (MN) function with 6-digit alphanumeric display • DTSS selective calling • Multi-scan capability • Dual menu system • Multi-function microphone with backlit keys • DTMF memory function • Built-in CTCSS tone encoder (optional decoder) • Tone scan • Wireless cloning function • Repeater reverse switch • Lock function • Busy channel lock out • Auto power-off • Time-out timer • 13.8V DC @ <11A • 5.5"w x 1.5"h x 6.3"d, 2.2 lbs.

TM-261A **2M** *(pictured)* 144-148MHz transmit; 118-174MHz receive • AM Airband receive • 50/10/5W • Auto repeater offset **$149.99**

TM-461A **440MHz** 438-450MHz transmit; 400-470 MHz receive • 35/10/5W • Looks similar to TM-261A except for frequency display **$439.99**

Available Accessories:
MB201 Mobile brket, **PG2N** DC cable, **TSU8** CTCSS decoder

TM-331A **220MHz FM Mobile Transceiver** Rugged and compact with features that guarantee reliable performance. Covers 222-225MHz transmit and receive • 25/10/5W • Easy-to-read, illuminated keys plus large LCD • 20 multi-function memory channels plus call channel • Multi-scan capability • Tone alert with elapsed time indicator • Page function • CTCSS tone encoder • Time-out timer • Lock function • Auto repeater offset • Repeater reverse switch • Multi-function mic supplied • 13.8V DC @ 6.5A • 5.5"w x 1.5"h x 6.3"d, 2.5 lbs..... **$499.99**

Available Accessories:
KQT8 CTCSS decoder, **MB201** Mobile brket, **PG2N** DC cable

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KENWOOD

TM-541A **1200MHz FM Mobile Transceiver** Extremely compact and lightweight, perfect for mobile installation. Enhanced night-time operation with its illuminated keys, large LCD, and backlit microphone with DTMF. Covers 1240-1300MHz transmit and receive • 10W RF power output • Easy-to-read, easy to operate illuminated keys plus large LCD display • 20 multi-function memory channels plus call channel • Built-in CTCSS tone encoder • ALT (Automatic Lock Tuning) • Tone alert system with elapsed time indicator • DTSS (Dual Tone Squelch System) • Pager function • Auto-power off • Time-out timer • Multi-scan function • Programmable call • Programmable VFO • Offset and repeater reverse switches • Multi-function backlit DTMF microphone supplied • 13.8V DC @ <6A • 5.5"w x 1.5"h x 6.3"d, 2.4 lbs..... **$449.99**

Available Accessories:
KQT8 CTCSS decoder, **MB201** Mobile brket, **PG2N** DC cable

TM-G707A **144/440MHz FM Dual Bander** Extraordinarily user-friendly with its extra-large detachable control panel. Transmit ranges: 144-148 MHz and 430-450MHz; receive: 118-174 and 410-524MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Detachable control panel with high-visibility amber-colored LCD display • 180 multi-function memory channels with alpha-numeric ID • Multi-scan functions • Priority scan function • Built-in CCTSS encoder and decoder • 1200/9600bps packet ready • Cross band repeater access • Selectable frequency step • S-meter squelch • Time-out timer • Dimmer control • Auto power-off • Multi-function backlit microphone with DTMF • 13.8VDC @ 11A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs **$269.95**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **VS3** Voice synthesizer

TM-V7A **144/440MHz FM Dual Bander** Easy-to-operate control panel with dual-mode, cool-blue, reversible LCD, offering positive and negative displays. Use with a PC, GPS, packet TNC or operate APRS position reporting and message system locally or nationally. Transmit: 144-148, 430-450MHz; receive: 118-174, 410-470MHz • 50/10/5W (VHF); 35/10/5W (UHF) • Data connector and separate automatic digital channel for APRS® • Detachable control panel • Dual receive on same band • Up to 280 multi-function memory channels (180 with 7-character alphanumerics) • Multi-scan functions • DTSS selective calling with page function • Built-in CTCSS enc/decoder • 1200/9600bps packet ready • Friendly operating menu • Automatic band change • Selectable frequency steps • S-meter squelch • Time-out timer • Audible frequency ID • Auto repeater offset (144MHz) • Auto power-off • Backlit multi-function mic with DTMF • 13.8VDC @ 10A • 5.5"w x 1.5"h x 7.4"d, 2.7 lbs **$399.95**

Available Accessories:
DFK3C 9' cable kit, **DFK4C** 13' cable kit, **DFK7C** Deluxe 23' remote kit, **MB201** Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4S** PC interface cable, **PG5A** Packet data cable, **VS3** Voice synthesizer

DUAL BAND UHF/VHF MOBILES

High performance multi-banders that can receive three bands simultaneously (with the addition of an optional band unit). Available detachable front panel kit and wireless remote control functions (by external DTMF signal) add versatility. Triple receive function with triple display • Selectable frequency step • Built-in DTSS selective calling with page • 101 memories and memory bank system • Flexible scan and scan stop modes • Tone alert system with elapsed time indicator • Triple repeater functions • S-meter squelch • Separate antenna and speaker terminals, squelch and volume control per band • Automatic band change • Sub-band muting • Date/time display, stopwatch, alarm • On/Off timer • Time-out timer • Auto power-off • 13.8V DC @ <11A • 5.9"w x 1.5"h x 6.8"d, 3.3 lbs.

TM-642AD **2M/220MHz** *(pictured)* 144-148MHz transmit/118-174MHz receive and 222-225MHz transmit/215-235MHz receive • 50/10W (2m); 25/10W (220MHz)..... **$739.99**

TM-742AD **2M/440MHz** 144-148MHz tx/118-174MHz rx and 438-450MHz tx/410-438MHz rx • 50/10W (2m); 35/10W (440MHz) • Looks like TM-642AD except frequency display **$639.95**

Available Accessories:
DFK3 9' separation display cable kit, **DFK4** 13' remote cable kit, **DFK7** Deluxe 22' remote kit, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **TSU7** CTCSS decoder unit, **UT1200** 10W 1.2GHz unit, **UT220S** 25W 220MHz unit (for TM-742AD only), **UT440S** 35W 440MHz unit (for TM-642AD only), **UT50S** 50W 6M unit

TM-D700A **Data Communicator 144/440MHz Dual Bander** Fully equipped to complement SSTV, GPS and APRS* operations. 144-148MHz and 430-450MHz transmit • Wide-band receive: 118-148, 136-175, 300-524 and 800-1300MHz (cell blocked) • 50/10/5W (VHF); 35/10/5W (UHF) • Detached control panel with extra-large backlit LCD and multi-function key display • Backlit microphone with alphanumeric input • Easy-to-use menu system • Advanced APRS-99 features • Built-in 1200/9600 bps TNC (AX.25) • DX cluster monitoring • Dual receive on same band for voice and data • 200 memory channels with 8-character alphanumerics • 2 call channels • 10 programmable memory scan banks • Built-in CTCSS and 1750 tone burst • Digital Code Squelch (DCS) • DTMF memory • Cross band and fixed band repeater operation • DCS code scan, tone, CTCSS scan • 10-channel program scan • Visual band scope • 13.8VDC @ 11.5A • 5.5"w x 2.4"h x 1.2"d, 0.4 lbs. (control), 5.5"w x 1.2"h x 7"d, 2.6 lbs. (main)..... **$519.95**

Available Accessories:
MB201 Mobile bracket, **MJ88** Modular/8-pin adapter, **PG2N** DC cable, **PG4X** 13' extension cable kit, **PG5A** Packet data cable, **VS3** Voice synthesizer

FREE ITEMS included with some radios. See Price Guide for details.

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LOW POWER SINGLE BAND SSB MOBILE TRANSCEIVERS

Easy to operate, no microprocessor – turn on and tune in. • 20W PEP (Less on VHF models) – plus Constant Current™ syllabic speech processing for an added 4–6dB advantage to cut through noise • Includes handheld dynamic microphone • 3A from 12V supply or battery • Low noise preamp and active double balanced mixer front end • Sharp 2.3kHz SSB crystal ladder filter reduces passband noise and fights QRM • TVI protection • Real S-meter • Agile tuning – reduction drive analog VFO – scan band quickly, zero in smoothly • Amp jack • 2.5"h x 6.5"w x 6"d, 2 lbs.

9402X 2M SSB Adventure Radio™, 7W .. **$269.99**
9406X 6M SSB Adventure Radio™, 10W **$249.99**
9410X 10M 20W Adventure Radio™..... **$249.99**

Available Accessories:
1770A 10M dipole for 9410X, **4110** Portable AC power supply, **4114** Rechargable power pack, **416** CW adapter, **971** 200W HF tuner (9410X only)

Your HF Solution

Portable, Emergency Operation

Portable operation can be rough. It can be tough. It can be damaging to your equipment especially in an emergency

Solution: The SG-2020 sets the standard for quality and relaibility. It's a professional, rugged, portable HF radio.

Any Transceiver/Any Antenna

The best transceiver and the best antenna for your needs probably don't match.

Solution: SGC Smartuners work with any transceiver and any antenna. They operate independently. They are simple to use: just press the microphone key and transmit! It's so easy, people often install a Smartuner and forget it's there.

Hidden Operation

Want to be heard, but not seen?

Always wanted a Smartuner, but didn't think you could afford it? **Solution**: The SG239 Budget Smartuner now available for a new low price.

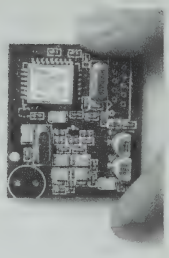
Smartuners are the original and still the best. You CAN afford SGC.

Smart Choice! Smartuner!

Noise Reduction for Everyone!

Crowded Bands = Noisy Bands

Solution: Get a clearer signal with ADSP^2. It provides noise reduction beyond what is available in high-end base station units.



With up to 26 dB of noise reduction along with three proprietary band pass filters, ADSP^2 can be fitted to nearly any transceiver ro enhance your ability to pull signals out of the background noise.

No Compromise Communications

SGC Inc. 13737 SE 26th St. Bellevue, WA 98005 USA, Tel: 425-746-6310 Fax: 425-746-6384
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ULTRA-RUGGED, SUBMERSIBLE TRI-BAND MAGNESIUM HANDIE

The exciting new YAESU VX-7R sets new standards in ruggedness, water resistance, and versatility, and its memory capacity is unparalleled. Own the VX-7R, and you'll own the best.

Actual Size

50/144/430 MHz 5W FM Transceiver
VX-7R
Magnesium Silver

50/144/430 MHz 5W FM Transceiver
VX-7R(B)
New Black Version Available

Features

- SUBMERSIBLE (3 feet for 30 minutes)
- SHORTWAVE BROADCAST MEMORY BANK
- WEATHER BROADCAST MEMORY BANK WITH "SEVERE WEATHER" ALERT
- MARINE BAND MEMORY BANK
- MULTI-COLOR STROBE LED
- LOW-POWER 222 MHz TX (U.S. version)
- RUBBER CASE PROTECTOR
- TRUE DUAL RECEIVE (V+V/U+U/V+U/HAM+GEN)
- WIDE-RANGE RECEIVER
- MAGNESIUM CASE
- OVER 500 MEMORY CHANNELS
- MIXED TONE (CTCSS/DCS) CAPABILITY
- INTERNET KEY FOR ACCESS TO WIRES
  Wide-Coverage Internet Repeater Enhancement System

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http://www.vxstdusa.com

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HF/VHF/UHF Portable Operation Just Got a Lot More Powerful! Meet the YAESU FT-897!

Turn your next weekend getaway into an HF DX-pedition, and leave the power supply at home.

Portable/Base Station

FT-897

All-Mode 1.8-430 MHz Transceiver

Shown with optional FC-30 Automatic Antenna tuner and FP-30 AC Power Supply

- HF/50 MHz 100 W, 144 MHz 50 W, 430 MHz 20 W (External 13.8V DC) 20 W (430 MHz 10W) Self-contained w/optional FNB-78 Battery Pack
- SSB/CW/AM/FM/Digital Modes
- Optional FP-30 Internal Power Supply and FC-30 Antenna Tuner
- Built in DSP

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Leading the Way in FM Mobile Design... From the Engineers at Yaesu!

You'll never think about mobile radios the same way. Instead of a dual-bander, enjoy the versatility and performance of the FT-8900R Quad Bander!

Crafting the "perfect" dual-band FM transceiver is a difficult task, requiring engineering expertise in the latest areas of high-tech design. Adding other bands is an even greater challenge, calling for a delicate touch so as not to upset the original performance of the dual-bander. The FT-8900R is the crowning achievement in our proud FM mobile design history, bringing together the best features of Yaesu electrical, ergonomic, and mechanical design know-how in a compact, versatile Quad Bander with leading-edge features like VHF/UHF full duplex, cross-band repeat, independent operation on two bands, and six "Hyper Memory" keys that store complete transceiver configuration settings. Quite simply, the FT-8900R has no peer among mobile transceivers.

Features

- 29/50/144/430 MHz FM Quad Bander
- V+U/V+V/U+U Dual Band Reception
- V+U Full Duplex Operation
- Cross-Band Repeater Operation
- Independent Dial for Each Band
- Heavy-Duty Construction
- Remote-Head Mounting Capability (requires optional YSK-8900)
- High-Power 50 W (430 MHz: 35 W) and Heavy-Duty PA Design
- User-Programmable Microphone Keys
- Huge Illuminated Display
- 50-Tone CTCSS/104-Code DCS Tone Systems
- ARTS™ (Auto-Range Transponder System)
- Smart Search™ (Automatic Memory Loading System)
- Hyper Memory (stores and recalls six complete sets of transceiver configuration data)
- Huge 800-Channel Memory Capacity
- Versatile Scanning Selections
- RF Squelch
- Internet Key for Instant Access to WIRES™ (Wide-coverage Internet Repeater Enhancement System)
- 1200/9600 bps Packet Operation

FT-8900R

29/50/144/430 MHz Quad Band FM Mobile

Actual Size

*Simulated LCD

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Specifications subject to change without notice. Some accessories and/or options may be standard in certain areas. Frequency coverage may differ in some countries. Check with your local Yaesu Dealer for specific details.

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COOL AND QUIET 65 W OPERATION

Yaesu's FT-2800M, the most ruggedly-built 2-meter amateur transceiver ever, provides 65 Watts of power along with Yaesu's renowned bullet-proof receiver front end. Direct keypad frequency entry, Alpha-Numeric Memory System, the high power output, and unsurpassed ergonomics make the FT-2800M an operator's dream come true!

High power output, a huge, easy-to-read display, and one-touch WIRES™ Internet Linking Access capability are yours with the exciting new FT-2800M.

On transmit, the 65 Watts of true FM power output provides you with excellent coverage and superb voice clarity. On receive, you get extended coverage of 134-174 MHz, with a special memory bank dedicated to the NOAA Weather Broadcast Channels (U.S. version only).

Built to the exacting requirements of both the commercial radio industry, as well as the U.S. military's MIL-STD 810, the FT-2800M is constructed using an aluminum diecast chassis/heatsink assembly, providing outstanding mechanical and thermal stability for the internal components.

With superb ergonomics to go along with its stout RF design, the FT-2800M is ready for action, at home or away!

New Ultra-High-Dissipation Heat Sink Design

The all-new heat sink of the FT-2800M provides more effective cooling than any other design, allowing long transmission periods without dangerous heat build-up or power reduction due to thermal protection.

HEAVY-DUTY VHF FM TRANSCEIVER

FT-2800M

ACTUAL SIZE

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SINGLE BAND MOBILE TRANSCEIVERS

Manufacturer	ADI	ADI	ADI	ALINCO	ALINCO	ALINCO	ALINCO	ICOM	ICOM	KENWOOD	KENWOOD	KENWOOD	KENWOOD	MFJ	MFJ
Model	AR-147+	AR-247	AR-447	DR-M06TH	DR-135T & TP	DR-235T	DR-435T	IC-2100H-25N	IC-V8000	TM-261A	TM-331A	TM-461A	TM-541A	8621	8621X2
TX Range (MHz)	144-148	222-225	430-450	50-54	144-148	222-224.995	430-449.995	144-148	144-148	144-148	222-225	438-450	1240-1300	145.01	144.39
Rx Range (MHz)[1]	118-171	216-229	400-470	40-60[1]	118-174	216-279.995	350-511.995	136-174	136-174	118-174	222-225	400-470	1240-1300	145.01	144.39
Aircraft Rx	Yes	N/A	N/A	N/A	Yes	No	No	No	No	No	No	Yes	No	No	No
Power Output	60/15/5W	30/15/5W	35/10/5W	20/1W	50/10/5W	25/10/5W	35/10/5W	50/10/5W	75/25/10/5W	50/10/5W	25/10/5W	35/10/5W	10W	5W	5W
TTP Microphone	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes/DCS	Yes	Yes	Yes	Yes	No	No
Tone Decode	Yes/DCS	Yes/DCS	Yes/DCS	EJ-20U	Yes	Yes	Yes	Yes	Yes/DCS	TSU-8	KQT-8	TSU-8	KQT-8	No	No
Memories	80	80	80	100	100	100	100	113	207	62	20	62	20	0	0
Alphanumeric	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
PC Programmable	Yes	Yes	Yes	N/A	No	No	No	Yes	Yes	No	No	No	No	No	No
13.8V DC@	12A	8A	10A	5A	11A	8A	10A	12A	15A	11A	6.5A	10A	6A	>1A	>1A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239	Type-N	SO-239	SO-239
Size (h/w/d, in.)	1.5/5.5/6.5	1.5/5.5/6.3	1.5/5.5/6.3	1.6/5.5/4.5	1.6/5.6/6.9	1.6/5.6/6.9	1.6/5.6/6.9	1.6/5.5/7.1	2.0/5.9/5.9	1.6/5.5/6.3	1.7/5.5/6.6	1.7/5.5/6.6	1.6/5.5/6.3	1.5/5/5	1.5/5/5
Weight (lbs.)	2.65	2.65	2.65	1.5	2.3	2.3	2.3	2.5	2.22	2.2	2.65	2.2	2.4	0.8	0.8

Manufacturer	MFJ	MFJ	MFJ	RANGER	YAESU	YAESU
Model	9402X	9406X	9410X	RCI-5054DX	FT-1500M	FT-2800M
TX Range (MHz)	144-144.3	50-50.3	28.3-28.6	50-54	144-148	144-148
Rx Range (MHz)[1]	144-144.3	50-50.3	28.3-28.6	50-54	137-174	137-174
Aircraft Rx	No	No	No	No	No	No
Power Output	7W SSB	10W SSB	20W SSB	10/25W	50/25/10/5W	65/25/10/5W
TTP Microphone	No	No	No	No	Yes	Yes
Tone Encode	No	No	No	No	Yes	Yes
Tone Decode	No	No	No	No	Yes	Yes/DCS
Memories	0	0	0	10	130	221
Alphanumeric	No	No	No	No	Yes	Yes
PC Programmable	No	No	No	No	Yes	No
13.8V DC@	2A	3A	3A	7A	8A	10A
Antenna Conn	SO-239	SO-239	SO-239	SO-239	SO-239	SO-239
Size (h/w/d, in.)	2.5/6.5/6	2.5/6.5/6	2.5/6.5/6	2.4/7.75/10.75	1.4/5/5	2/6.3/7.3
Weight (lbs.)	2	2	2	1	2.2	4

* Remotable control head
(1) Requires keyboard modification
(2) Expanded memory requires optional EJ-19U
(3) 2 Piece configuration only
(4) 2M/220MHz Transceiver
(5) All models are Cellular Blocked
(6) AM aircraft receive mode
(7) Does not include projections (knobs, antenna jacks, etc.)
(8) Manufactuer only guarantees specs within the ham bands
(9) Requires internal modification (available on request)
(10) There are gaps in non-voice or data portions in certain bands
(11) Control head separate from body
(12) FT-8900R includes 10M/6M as well
(13) This device has not been approved by the FCC. This device may not be sold or leased, or offered for sale or lease, until approval of the FCC has been obtained.

All radios are cell blocked

FREE ITEMS included with some radios.
See Price Guide for details.

MULTI BAND MOBILE TRANSCEIVERS

Manufacturer	ALINCO	ICOM*	ICOM*	KENWOOD[11]	KENWOOD*	KENWOOD*	KENWOOD	KENWOOD*	RANGER	RANGER	YAESU	YAESU*
Model	DR-605TQ	IC-207H	IC-2720H[13]	TM-D700A	TM-G707A	TM-V7A	TM-642AD[4]	TM-742AD	RCI-2950DX	RCI-2970DX	FT-8900R	FT-90R
Tx Range[5,8]	144-148 430-450	144-148 440-450	144-148 430-450	144-148 438-450	144-148 438-450	144-148 438-450	144-148 220-225	144-148 438-450	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	28-29.7,50-54 144-148	144-148 430-450 430-450
Rx Range (MHz)[5,8]	136-174 420-470	118-174[6] 440-450	118-550 (left) 118-174, 375-550 810-999 (right)	118-470 (A band)[10] 136-175, 300-524 800-1300 (B band)[10]	118-174 410-524[6]	118-174 410-470[9]	118-174 213-235[6]	118-174 410-470[6]	24.8-24.99 28-29.6999	24.8-24.99 28-29.6999	28-29.7,50-54 108-180 320-480, 700-985	100-230 300-530 810-1000
Single or Dual Rx	Dual	Single	Dual	Dual	Single	Dual	Dual	Dual	Single	Single	Dual	Single
Power (2M)[12] Power (440MHz)	50/5W 35/5W	50/20/10/5W 35/20/10/5W	50/20/5W 35/20/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 35/10/5W	50/10/5W 25/10/5W	50/10/5W 35/10/5W	25W SSB 10W CW/FM/AM	150W SSB 50W CW/FM/AM	50W[12] 35W	50/20/10/5W 35/20/10W
Memories	100	182	212	200	180	280	101	101	10	10	800	186
Tone Encode	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Tone Decode	Yes	Yes	DCS	Yes	Yes	Yes	Opt. TSU-7	Opt. TSU-7	No	No	DCS	DCS
Duplexer	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
Cross-Band Rpt.	Yes	No	Yes	Yes	No	Yes	Yes[9]	Yes[9]	No	No	Yes	No
Alphanumeric	No	No	No	Yes	Yes	Yes	No	No	No	No	Yes	Yes
PC Programmable	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	Yes
9600b Compatible	Yes	Yes	Yes	Yes	Yes	Yes	Yes[9]	Yes[9]	No	No	Yes	Yes
Separateable	No	Yes	Yes	Yes[2]	Yes	Yes	Yes	Yes	No	No	Yes	Yes
Height (in.) (Head) Width (in.) Depth (in)[7] Weight (lbs)	1.6 5.5 6.9 2.4	1.6 5.5 7.3 2.6	1.6 (2) 5.5 (5.5) 7.4 (1.1) 3 (5.3)	1.6 (2.4) 5.5 (5.5) 7.7 (1.3) 2.6 (6.3)	1.6 5.5 7.4 2.7	1.6 5.5 7.4 2.7	1.9 5.9 6.9 3.9	1.9 5.9 6.9 3.9	2.375 7.75 10.75 4.2	3.875 7.75 9.25 7.4	1.6 5.5 6.6 2.2	1.2 3.9 5.4 1.4

MFJ ENTERPRISES, INC.

VHF DATA RADIOS

Don't tie up your expensive rig on a single packet channel, check out these low-cost MFJ Data Radios.

8621 PacketOnly™ 2m Transceiver Compatible with all TNCs with hardware DCDs and most TNCs with software DCDs • 1200/9600 baud • 5W output • Low current drain (15mA on receive and less than 1 amp on transmit) • 5"w x 5"d x 1.5"h • Crystals installed for 145.01MHz **$139.99**

8621X2 PacketOnly™ 2m Transceiver Ready for APRS use. • Crystalled and aligned for 144.390MHz • 5W output **$149.99**

Available Accessories:
4110 Portable AC power supply, **5100** Data radio cable (MFJ/TAPR), **5100YH** Data radio cable (KPC9612), **5100YV** Data radio cable (KAM/KPC3), **5106** Open end (6-pin mini Kenwood/Yaesu)

RANGER Communications, Inc.

SINGLE BAND 6M MOBILE

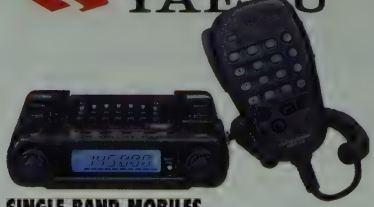
RCI-5054DX All-Mode 6M Transceiver Covers 50-54MHz • 10W CW/AM/FM, 25W PEP SSB • 10 programmable memory frequencies • Programmable repeater offset (splits of up to 2MHz) • ± 2.5kHz receiver clarifier • Noise blanker/ANL circuitry • Programmable receiver scanning for quick search of active frequencies • Includes Up/Down tuning hand microphone • 12V DC • Public address feature • 2.4"h x 7.75"w x 10.75"d **$269.99**

DUAL BAND MOBILES

RCI-2950DX 10/12M Transceiver An old favorite updated with 12M, improved receiver, double FET balanced mixer, surface mount components and improved display lighting. Covers 24.8-24.99, 28-29.7MHz • 25W (SSB), 12W (CW), 10W (AM/FM) • Dual VFO • RIT • Noise blanker • Standard repeater offsets • Programmable tone • Scanning • 10 programmable frequencies • Lockout..... **$269.99**

RCI-2970DX Higher power version. 150W (SSB PEP), 50W (CW/FM/AM) **$399.99**

YAESU



SINGLE BAND MOBILES

FT-1500M 2M FM Transceiver Transmit: 144-148MHz, receive: 134-174MHz • 10 NOAA weather channels with "Weather Search" • 50/25/10/5W • Alphanumeric channel display • 130 multi-function memories with 6-character, alphanumeric labels • SmartSearch™ automatic memory loading • Priority channel • 16-digit, 8 memory DTMF autodialer • 50-tone CTCSS enc/decode • Bell alert CTCSS paging • Auto repeater shift • 1200/9600 baud compatible, rear panel data jack • Time-out timer • Auto power off • DTMF direct access mic • MIL-STD 810 D/E • DC voltage display • 13.8V DC @ 9.5A • 5"w x 1.4"h x 4.9"d, 2.2 lbs ..... **CALL**

Available Accessories:
ADMS2F Programming software, **CT39** Packet cable, **MLS100** Mobile speaker, **RA0242900** Mobile bracket, **T9021810** DC cable

FT-2800M 2M FM Transceiver Cool, quiet, and ruggedly-built; utilizes a new ultra-high dissipation heat sink design that eliminates the need for a cooling fan. • 65/25/10/5W (memory storable) • Direct keypad frequency entry with a backlit mic that includes a 9-memory, 16-digit, DTMF autodialer and 4 user-programmable "soft" keys • Advanced track tuning RF input filtering • Huge alphanumeric channel display • Ergonomic, impact-resistant, MIL spec design (MIL-STD 810) • CTCSS encode/decode and SmartSearch™ auto memory loading • Versatile scanning features a choice of scanning-resume option along with a "preferential" list • WX channels with "Severe Weather" alert (10 weather memories) • WIRES™ internet linking access • 6.3"w x 2.0"h x 7.3"d, 4 lbs ..... **CALL**

Available Accessories:
MLS100 Mobile speaker

Look For This NEW & Check Out AES' Latest Additions.

MULTI BAND MOBILES

FT-90R 2M/440MHz FM Transceiver Micro-sized with built-in cooling fan • TX: (2M) 144-148MHz; (440MHz) 430-450MHz • Wideband rx: 100-230, 300-530, 810-999.975MHz (cell blocked), includes AM aircraft • 50/20/10/5W (2M), 35/20/10/5W (440 MHz) • 186 memories with alphanumeric labels • 5 scanning modes • Built-in CTCSS/DCS enc/dec • ARTS™ • 1200/9600bps compatible • Auto repeater shift • Time-out-timer • Ultra-compact remote-head capability • DTMF direct access mic with user-programmable keys • 8-memory, 16-digit DTMF autodialer • Memory cloning • 13.8V DC @ 9.5A • 3.9"w x 1.2"h x 5.4"d, 1.42 lbs..... **CALL**

Available Accessories:
ADMS2E Programming software, **MLS100** Mobile speaker, **RA0131900** Mobile bracket, **T9021810** DC cable, **YSK90** Remote separation kit

FT-8900R Quad Band FM Mobile Nation- or world-wide FM communications from a vehicle! • 28-29.7, 50-54, 144-146, 430-440MHz tx • 28-29.7, 50-54, 108-180, 320-480 and 700-985MHz (cell blocked) wide frequency receive • 50W (10/6/2M), 35W (430MHz) high power output • FM satellite operation • Over 800 memories • DTMF auto-dial memory • One-touch band-pattern "Hyper-Memory," allows set up and storage of complete transceiver configuration settings. Saves button pushing! • CTCSS/DCS encode/decode • SmartSearch™ auto memory loading • Cross band repeat • Independent, 2-channel, dual receive and full duplex (separate volume and squelch controls, as well as S-meters) • Built-in duplexer • WIRES™ compatible • RF squelch • Auto repeater shift • ARTS™ capable • User-programmable microphone keys • Easy set up for FM satellite operation • Battery voltage meter • Time-out timer • Automatic power off • Large, easy-to-read LCD display • 1200/9600 bps packet • Thermal-sensored cooling fan • Remote head mounting capability • 5.5"w x 1.6"h x 6.6"d, 2.2 lbs ..... **CALL**

Available Accessories:
CT39 PPacket cable, **MLS100** Mobile speaker, **MMB62** Remote control panel bracket, **T9021810** DC cable, **YSK8900** Remote separation kit

FREE ITEMS included with some radios. See Price Guide for details.

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

MFJ 1.8-170 MHz

259B $239.99

269 SWR Analyzer

E-X-P-A-N-D-E-D Frequency Coverage & Added Features

1.8–170 MHz plus 415-470 MHz

Looks nearly identical to, and has all the features of the 259B PLUS...

- Covers 1.8 to 170 MHz plus 415 to 470 MHz
- Built-in CoaxCalculator™ – calculates coax length in feet given coax length in electrical degrees and vice versa, and any velocity factor (great for building matching sections and phasing lines for multiple antennas).
- New 12-bit A/D converter gives much better accuracy and resolution than common 8-bit A/D converters.

New 1.8 to 170 MHz Range features:

- Read Complex Impedance as series equivalent resistance and reactance (Rs+jXs) or as magnitude (Z) and phase (degrees). Also reads parallel equivalent resistance and reactance (Rp+jXp).
- Measure SWR and loss of coax with any characteristic impedance from 10 to over 600Ω, including 50, 51, 52, 53, 73, 75, 93, 95, 300, 450Ω.

415 to 470 MHz Range features:

- Read SWR, return loss, reflection coefficient simultaneously, and cable loss in dB and match efficiency.
- Has LCD logarithmic SWR bargraph and SWR meter for quick tuning.

269 $319.99

www.mfjenterprises.com

MFJ SWR Analyzers

... for Serious Antenna Performance!

You've spent a lot of time and money on your antenna system, so why not make sure it's giving you top performance? An MFJ SWR Analyzer will do that – plus, it will make you very popular because all of your Ham buddies are going to want to borrow it!

The MFJ 259B and 269 are complete Ham radio test stations, including – Frequency Counter, RF signal generator, SWR Analyzer, RF Resistance and Reactance Analyzer, Coax Analyzer, Capacitance and Inductance Meter & more!

The **259B** and **269** can take the frustration out of tuning your antennas for maximum performance. Gone are the days of using a conventional, sometimes questionable, SWR meter. You will no longer have to drag your rig (RF source) out into the yard. No more running in and out of the house or up and down the tower to make those seemingly endless readings and adjustments.

The **259B** and **269** are self-contained and fully portable units, with built-in battery power and RF source so you can take it right to the antenna. Take one reading to get a complete picture of your antenna, and make tuning adjustments on the spot.

Operation is simple, just connect the feed line, set the bandswitch and tune the dial – just like a transceiver. All information is clearly displayed instantly on the large, easy-to-read, two-line LCD screen and side-by-side meters.

When tuning transmission lines or making up phasing harnesses for stacking antennas, you can quickly determine exact 1/4 or 1/2 wavelengths. You can also determine the velocity factor, coax cable loss, length of coax and distance to a short or open in coaxial cable.

Read SWR, return loss and reflection coefficient at any frequency, simultaneously, or inductance and capacitance at RF frequencies at a glance.

The 259B and 269 operate on 110V with the 1312 adapter ($14.99) or on 10 "AA" internal batteries, not included. For rechargebles, there is a built-in charger, MFJ's 1312 required.

All metal cabinet, 6-3/4"h x 4"w x 2"d.

Overall, here's what you can do...

- Read antenna SWR & Complex Impedance from 1.8-170MHz with the 259B and additionally 415-470MHz with the 269. Complex Impedance can also be read as series resistance and reactance (R+jX) or as magnitude (Z) and phase (degrees).
- Find true resonant frequency of antenna.
- Trim dipoles and verticals to resonance.
- Adjust your Yagi, quad, loop and others. Change antenna spacing and height – watch SWR, resistance and reactance change instantly.
- Perfectly tune critical HF mobile antennas in seconds for top performance – without subjecting your transceiver to high SWR.
- Measure your antenna's 2:1 SWR bandwidth on one band, or analyze multiband performance over the entire spectrum.
- Check SWR outside the ham bands without violating FCC rules.
- Adjust your antenna tuner for a perfect match without creating QRM.
- Take the guesswork out of building and adjusting phasing lines, matching networks and baluns.
- Accurately measure distance to a short or open in a failed coaxial transmission line. Measure the length of a roll of coax and also determine loss, velocity factor and impedance.
- Measure frequency with built-in counter.
- Frequency counter function.
- Troubleshoot and measure resonant frequency and approximate Q of traps, stubs, transmission lines, RF chokes, tuned circuits and baluns.

SWR Analyzer Accessories

29C Carrying Case – Tote your 259B anywhere with this custom carrying case. Wear it around your waist, over your shoulder, or clip it onto the tower while you work. Has back pocket for carrying dip coils and coax adapters. Special foam filled fabric cushions blows and protects unit from wear and tear. **$24.99**

39C Carrying Case – Fits the 269..... **$24.99**

66 Dip Meter Adapter – For grid dip operation. Set of two plug-in coils covers 1.8-170MHz range **$19.99**

98 Accessory Pack – Includes 39C case, 66 dip adapter and 1315 AC adapter..... **$54.99**

99 Accessory Pack – Includes 29C case, 66 dip coils and 1315 AC adapter..... **$54.99**

99B Accessory Pack – Includes 10 "AA" NiMH batteries, 29C case, 66 dip coils and 1315 AC adapter..... **$77.99**

99C Accessory Pack – Includes 10 "AA" NiMH batteries and 1315 AC adapter..... **$34.99**

731 Tunable Measurement Filter – Use with 259B or 269 for accurate measurements in the 1.8-30 MHz range while in the presence of strong RF fields from nearby broadcast stations or other RF emitters **$89.99**

MFJ SuperCell

92AA01 1300mAh AA Ni-MH Battery...ea. **$2.99**

92AA10 10 Pack.... **$24.99**

29C / 39C

66

731

Coaxial Dynamics

RF DIRECTIONAL WATTMETERS

81000-A **RF Directional Wattmeter** Accurate RF Power measurement in 50Ω coaxial systems. Uses an internal line section and "Quick Match" plug in elements in the range of 0.1–10,000 watts full scale, and from 0.45 to 2300MHz.

Simply plug in the appropriate measuring element and select forward or reflected direction. Measured average RF power is indicated directly on the large 4.5" "taut-band" meter with three scale display. The meter is also mirrored and shock mounted to provide the most reliable and accurate readings.

Strong shock-proof housing. With SO-239 connectors (Type-N female Special Order)..... **$260.99**

83000-A **RF Peak Reading Wattmeter** Similar in appearance and operation to the standard Model 81000-A wattmeter. Contains an amplifier which allows measuring of both Average and Peak Envelope Power (PEP) with the flip of a switch. Internal 9V battery is required and supplied for peak reading mode..... **$393.99**

STANDARD PLUG-IN ELEMENTS

82004 2 to 30MHz; 50W..... **$87.99**
82005 2 to 30MHz; 100W..... **87.99**
82006 2 to 30MHz; 250W..... **87.99**
82007 2 to 30MHz; 500W..... **87.99**
82008 2 to 30MHz; 1000W..... **87.99**
82009 2 to 30MHz; 2500W..... **125.99**
82010 2 to 30MHz; 5000W..... **125.99**

82013 25 to 60MHz; 10W..... **71.99**
82014 25 to 60MHz; 25W..... **71.99**
82015 25 to 60MHz; 50W..... **71.99**
82016 25 to 60MHz; 100W..... **71.99**

82029 100 to 250MHz; 10W..... **71.99**
82031 100 to 250MHz; 50W..... **71.99**
82033 100 to 250MHz; 250W..... **71.99**

82046 400 to 1000MHz; 10W..... **71.99**
82048 400 to 1000MHz; 50W..... **71.99**
82049 400 to 1000MHz; 100W..... **71.99**

ACCESSORIES

88000 Type-N female "QM" connector..... **$9.99**
88800 Carrying case..... **55.99**

DAIWA industry co. ltd.

CROSS NEEDLE SWR/POWER METERS

CN-101 Covers 1.8-150MHz, rated at 1500W from 1.8-60MHz and up to 1000W at 144MHz. Shows Forward and Reverse power and VSWR simultaneously. Three power ranges: 15/150/1500W (RMS or PEP); ±10% of full scale accuracy. SWR detection sensitivity: 4W minimum. 50Ω impedance, SO-239 connectors. 6"w x 3"h x 3.875"d, 1.5 lbs ... **$99.99**

CN-103M Same as CN-101, but covers 140-525MHz and rated at 200W. Two power ranges: 20/200W (RMS or PEP)..... **$99.99**

PROFESSIONAL SERIES

The CN-801 series of cross needle meters features the most accurate meter and largest meter face in the Daiwa line. The large, easy-to-read meter has .5W increments and is lighted. This is truly a professional quality meter. • 5W SWR detection sensitivity (min.) • 50Ω impedence • 6"l x 4"h x 4.5"w • 2.2lbs

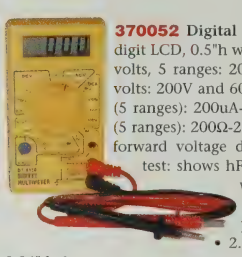
CN-801H 1.8-200MHz, 20/200/2kW..... **$149.99**
CN-801V 140-525MHz, 20/200W..... **$154.99**
CN-801S 900-2500MHz, 2/20W, Type-N connectors..... **Special Order**

VANCO™

LOW COST METERS

SWR-1 **Field Strength or SWR Meter** *(left)* Range: 3.5-150MHz, Impedance: 52Ω, SWR: 1:1–3:1, Accuracy: 5%, Meter sensitivity: 300uA. 5" RF pick-up antenna. 6"h x 2"w x 2.875"d, 14 oz. .. **$19.99**

SWR-3 **SWR Meter** *(right)* Range: 1.7-30MHz • Impedance: 50–52Ω • SWR: 1:1-3:1 • Accuracy: 5% • Sensitivity: 300uA • 2.5"x3.5"x3", 6oz..... **$14.99**



370052 **Digital Multi-Meter** 3.5 digit LCD, 0.5"h with polarity • DC volts, 5 ranges: 200mV-600V • AC volts: 200V and 600V • DC current (5 ranges): 200uA-10A • Resistance (5 ranges): 200Ω-20kΩ • Diode test: forward voltage drop • Transistor test: shows hFE value • Comes with 100-hour, 9V battery and plug-in test leads • 2.76"w x 4.96"h x 0.94"d, 6oz **$19.99**

Bel MERIT

DX-405 **Multi-function Multimeter** 10 functions/39 ranges • 3.5 digit, manual ranging • Frequency meter, to 20MHz • 0.25% DCV basic accuracy • Measure voltage, current, resistance & diode • Continuous beeper • Data hold • Auto power off • Input warning • Tilt stand with holder • Holster • 4"w x 7.5"h x 1.5"d, 1.5 lb..... **$69.99**

DM-80 **Pocket Digital Multimeter** 3200 count • 32 segment bargraph • Auto/manual ranging • Auto off • Data hold • Range • Voltage, AC/DC 450V • Resistance, 30MΩ • Diode test • Continuity beeper • Over range indication • Low battery mark auto polarity • Carrying case • 2"w x 4.1"h x 0.4"d, 3.2 oz..... **$34.99**

VELLEMAN

DVM-810 **Digital Multimeter** Compact design makes this meter a perfect fit for any toolbox or even shirt pocket! It features multiple functions and an easy-to-read LCD display. • 3.5 digits • 19 ranges • Measures voltage, current, resistance, transistor and diode • Battery included..... **$9.99**

DIAMOND ANTENNA

SWR/POWER METERS

(left) Five models measure power and SWR with 5–10% of F.S. accuracy. Illuminated meter, sensor switch, LED indicator. Power ratings for intermittent operation. For continuous, ratings vary with frequency. SO-239 connectors on all except SX-1000 (type-N). 6"w x 2.5"h x 4"d, 2 lbs.

SX-100 1.6-60MHz, 30/300/3kW PEP... **$134.99**
SX-200 1.8-200MHz, 5/20/200W PEP..... **$94.99**
SX-400 140-525MHz, 5/20/200W PEP.. **$114.99**
SX-600 Dual band, 1.8-160MHz and 140-525 MHz, 5/20/200W PEP ranges..... **$169.99**
SX-1000 Dual band, 1.8-160MHz and 430-1300MHz, 5/20/200W PEP ranges..... **$214.99**

CROSS-NEEDLE SWR/POWER METERS

(right) Indicate forward/reflected power and SWR simultaneously. 50Ω impedance, SO-239 connectors, 10% F.S. accuracy, 3.3"w x 3.4"h x 3.7"d, 9 oz.

SX-20C 3.5-30/50-54 and 130-150MHz ranges; 30/300W. Needs 5W minimum for VSWR. **$89.99**
SX-40C 144-470MHz (220MHz with correction factor); 15/150W (3W minimum power)... **$79.99**

AES
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Browse Our Store On-Line at www.aesham.com

DAIWA

Accurate Measurements

NO EXCUSES.

Professionally Engineered "Cross Needle" Meters

Forward power, reflected power and VSWR are displayed simultaneously! No calibration required! Daiwa high quality instruments make the tedious measuring of SWR and Power during antenna tests, transmitter matching and tuning a very easy task.

Professional Series

Accurate and dependable featuring a large, easy-to-read lighted meter. 13.8VDC jack on rear panel. 6"l x 4¾"h x 4½"d (approx.)

CN-801H
Frequency Range: 1.8-200MHz
Forward Power Ranges: 20/200/2000W

CN-801V
Frequency Range: 140-525MHz
Forward Power Ranges: 20/200W

CN-801S
Frequency Range: 900-2500MHz
Forward Power Ranges: 2/20W

Economy Series

Accurate and dependable bench meters at an economy price. Lighted, 13.8VDC jack on rear panel. 6"l x 3"h x 4"d (approx.)

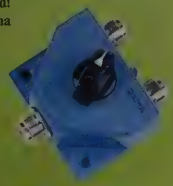
CN-101
Frequency Range: 1.8-150MHz
Forward Power Ranges: 15/150/1500W

CN-103M
Frequency Ranges: 140-525MHz
Forward Power Ranges: 20/200W

CN-103N (N-Type Conns)

NEW! POWER SUPPLY

SS-330W
Convenient, lightweight 30 amp switching supply.
30 amps continuous
Dual meters
Adjustable voltage (5–15V)
Built-in fan
Weighs less than 5 lbs.
Carrying handle



Coax Switches

Patented design and excellent RF characteristics. Automatic grounding of unused circuits with heavy-duty die cast cavity construction.

CS-201
2-Position 600MHz Switch
Max. Power: 2.5kW PEP/1kW CW
Conns: SO-239

CS-201GII
2-Position 2GHz Switch
Max. Power: 1.5kW CW
Conns: Gold plated N-Type

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(714) 630-7024 fax
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Daiwa CN-801S, CN-103N, CS-201GII and SS-330W, above, are Special Order

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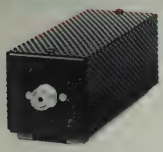
MFJ ENTERPRISES, INC.



DUMMY LOADS

250 Versaload *(right)* 50Ω oil-filled dummy load providing low VSWR to 400 MHz. Rated at 1 KW CW or 2KW PEP for 10 min., with 50% power rating for 20 minutes and 200W CW (400W PEP) continuous. 7.25"h x 6.625" diameter With oil **$59.99**

250X Same as above, but requires oil **39.99**

Dry Loads *(left)* Air cooled, non-inductive 5Ω resistor mounted in a metal housing. Full rated load for 30 seconds with derating curve to 5 minutes.

260C (HF/VHF) Rated at 300W. 1:1 SWR to 30MHz, .5:1 to 650MHz. 2.5" x 2.5" x 7"... **$34.99**

260CN With type "N" connectors..... **39.99**

264 (UHF) Performs from 1.3 to 650MHz, usable to 750MHz. Rated at 1.5KW for 10-seconds and 100W for 10-minutes. 3"w x 3"h x 9"d..... **$69.99**

264N With type "N" connectors..... **79.99**

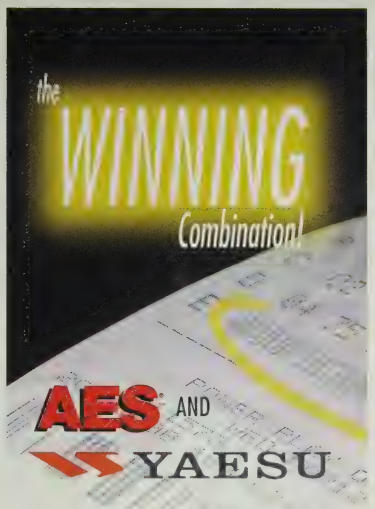
MIRAGE

MP-3 Measures RMS, peak forward and reverse power and SWR, directly without charts or calculations • Negligible insertion loss. • 420-450MHz • 5/50/150W PEP • Remotable coupler, SO-239 connectors • Requires 9V or AC adapter • Battery indicator • 5.75"x 4.5"w x 5.75"d, 3.5 lbs **$249.99**

YAESU

YS-60 Monitors average (CW) and peak (SSB) transmitter power and VSWR. Covers 1.8 to 60MHz, up to 2KW. Ranges: 0/200 and 2000W PEP. 50Ω imped., SO-239 connectors. Requires 12V DC for lamps and internal circuits. 4.75"w x 2.75"h x 3.5"d, 1.5 lbs **$129.99**

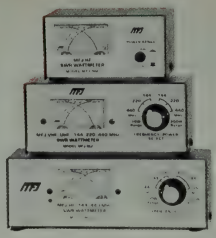
YS-500 Similar to YS-60, but covers 140–525MHz and has 4/20 and 200W PEP ranges..... **$109.99**



Dayton HamVention®
Booths 26-29

MFJ ENTERPRISES, INC.

SWR/POWER METERS



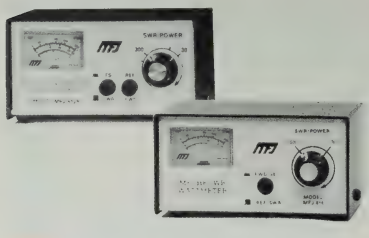
864 (bottom) Covers 1.8-60MHz, 144MHz and 440MHz bands. Dual sensors – connect an HF and VHF/UHF rig at the same time. Monitor SWR and power of either. Lighted Cross-Needle meter indicates 30/300W forward and 6/60W reflected power simultaneously. Uses 12V DC for meter light. 7.25"w x 2.5"h x 2.25"d **$84.99**

862 (middle) Similar to 864, but for 144MHz, 220 MHz and 440MHz. Ranges: 30/300W forward and 6/60W reflected. 5.75"w x 2.5"h x 2.25"d.. **$54.99**

860 *(top)* Similar to the 864, but covers HF 1.8 to 60MHz. Ranges: 30/300W forward and 6/60W reflected. 4.5"w x 2.25"h x 3"d **$44.99**

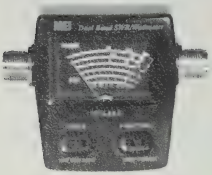
815B Features large 3 in. Cross-Needle meter for accurate SWR and peak or average power readings from 1.8 to 60MHz. Ranges: 200/2000W forward and 50/500W reflected. Push button selection. 12V DC meter light. 7.25"w x 2.5"h x 2.25"d ... **$79.99**

817 Looks and features similar to 815B but covers 144/440MHz bands. Ranges: 200/20W forward and 50/5W reflected. 7.25"w x 2.5"h x 2.25"d.. **$89.99**



812B (top/left) Indicates forward and reflected power on 2M/220MHz and SWR from 144–220 MHz, plus field-strength from 1–220MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d..... **$34.99**

816 Toroidal Meter (bottom/right) Indicates forward and reflected power from 1.8–30MHz. Power ranges: 30/300W. 4.5"w x 2.25"h x 3"d..... **$34.99**



844 VHF/UHF SWR/Power Meter Covers 144 and 440MHz, rated up to 200W. Easy to read multi-colored meter shows SWR/POWER in three ranges: 15, 60, and 200W. Insertion loss is 0.3 dB or less. Measures only 3.75"w x 3"h x 1.25"d – great to take along for portable, HT or mobile rigs **$69.99**

GrandMaster™ 3.25" x 1.25" meter, forward/reflected. 3 ranges. 13.8V/110V. 7.5"w x 3.125"h x 4.25"d.

870 (HF range) Covers 1.6 to 60MHz. Power ranges: 30/300/3000W **$124.99**

872 (HF/VHF range) Covers 1.8 to 200MHz. Power ranges: 5/20/200W **$94.99**

873 (VHF/UHF range) Covers 125 to 525MHz. Power ranges: 5/20/200W **$104.99**

874 (HF/VHF/UHF range) Covers 1.8 to 525MHz. Power ranges: 5/20/200W **$159.99**

267 Precision SWR/Wattmeter with Dry Dummy Load 3", lit, cross-needle meter shows true-peak, average forward/reflected power and SWR. • 1.8–54MHz • 300/3000W forward, 60/600W reflected – SWR 1:1 to 8:1 • Load-to-antenna switchable. 50Ω dummy load rated at 100W (10 min.) or 1.5kW (10 sec.). • Usable up to 60MHz • SWR 1.3:1 @ 30MHz. 12VDC lamp or 120VAC with 1312D or 9V battery. Aluminum, perforated • 4"w x 3.125"h x 10"d **$119.99**

FIELD STRENGTH METERS

801 Super Compact Field Strength Meter *(right)* You can read relative field strength from your antenna, measure antenna performance and discover how strong your antenna field is. Its compact size fits in the palm of your hand, only 2.375"w x 3.625"h x 1"d. Telescopic whip included ... **$19.99**

802 Bipolar Field Strength Meter *(left)* Dual whips are included, 2.375"w x 4"h x 1.5"d..... **$39.99**

MISCELLANEOUS

850 Line Voltage Monitor *(left)* Plug into any 110V AC outlet and monitor the line voltage on an expanded/colored 95 to 135V AC scale. Measures 2.25"w x 2.25"h x 1.5"d **$19.99**

204B Antenna Bridge *(right)* Quickly optimize 1.8-30MHz antennas for peak performance. Portable. Determine if an antenna is too long or short, measure resonate frequency and resistance to 500Ω. Built-in resistance bridge, null meter and oscillator driver. Requires 9V. 4"h x 2"w x 2"d..... **$79.99**

224 2M FM SignalAnalyzer™ Measure signal strength over 60dB range, antenna gain, beamwidth, front-to-back ratio, sidelobes, feedline loss. Check and set FM deviation. Plot field strength patterns, position antenna, measure preamp gain, tune transmitters and filters. Scope to analyze modulation wave forms, measure audio distortion, noise and peak deviation. Covers 143.5-148.5MHz. Headphone jack, battery (9V) check function. 4" x 2.5" x 6.75" **$149.99**

852 Power Line Noise Meter Sensitive (0.3 uV) superhet AM receiver with wide range noise level meter and AGC (over 70dB). Tuned to the 135MHz region. Telescopic, direction-finding dipole antenna is balun isolated and optimized to give a clearly defined null for pin-pointing sources. Plug in headphones and hear the trackable noise or plug in a tape recorder to document offending noise for playback. 9V battery. 2.8"w x 4"h x 1.5"d. **$89.99**

805 Pocket-Sized RFI Detector Track down and eliminate RFI caused by radiating cables and wires. Simply clamp the top mounted current transformer over suspected cable or wire (up to 1/4 inch diameter) to detect RFI causing common-mode currents. Useable from VLF to VHF. Uses 9V battery. 2.25"h x 4.75"h x 1"d **$79.99**

886 Pocket Frequency Counter *(left)* Covers 1 MHz – 3 GHz • 300MHz direct count with 0.1 Hz resolution • 10-digit LCD • Impedance: 50Ω (VSWR @ <2:1) • Sensitivity: 0.8mV @ 100MHz, 7mV @ 300MHz, 6mV @ 1GHz, 100mV @ 2.3 GHz • 15 dBm input • Synchronous detector • RF signal strength bargraph • 4 selectable gates • 6-hour, rechargeable NiCads • AC adapter • Telescoping antenna • 2.75"w x 3.25"d x 1.25"d **$109.99**

888 Deluxe Frequency Counter *(right)* Covers 10 Hz-3GHz • Displays frequency of local signals on 10-digit LCD • RF strength bargraph • Detects 150 MHz signals up to 150' • 300MHz direct count with 0.1Hz resolution • 4 selectable gates • Input: 50Ω (1-3MHz), 1Ω (10Hz-50MHz) • 6-hour NiCad pack • AC wall charger • BNC connector • Telescoping whip • 2.75" x 4.25"h x 1.25"d, 9 oz **$174.99**

854 RF Current Meter A top-mounted sense coil snaps over wires, cables, etc. up to 1/2" dia. • Measures actual RF currents in antenna elements, ground wires, radials and outside of coax feedlines • Six ranges, 30mA to 3A • Accurate from 1-30MHz • Range with variable sensitivity control • Auto-off press-to-test power circuit • All-aluminum case and G-10 PC board • 2.5"w x 5.5"h x 1.5"d, 11 oz **$89.99**

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VIBROPLEX®

The **Original Bug**, c. 1904, is still made using tools similar to those used by inventor Horace Martin. Designed for 20-50+ wpm.

110 Standard Painted base/chrome top **$169.99**
105 Deluxe Polished chrome base and top parts with fine jewel movements **$199.99**
100 Presentation Polished chrome base and 24K gold-plated base plate and chrome top parts, fine jewel movements..... **$269.99**
090 Gold Gold-plated base, chrome top **$309.99**

Vibrokeyers: Single lever paddle *(left)* initiates automatic dots and dashes of an electronic keyer. Iambic model *(right)* allows automatic dot/dash insertion.

Vibrokeyer
120 Standard Black base, chrome parts. **$149.99**
115 Deluxe Chrome base and top parts with jeweled movements **$184.99**
113 Gold 24K gold-plated base and top parts with jeweled movements..... **$279.99**

Iambic
135 Standard..... **$149.99**
130 Deluxe **$189.99**
125 Presentation 24K gold-plated base and top parts with jeweled movements **$249.99**
123 Gold **$279.99**

145 Brass Racer Iambic *(left)* Solid brass Iambic paddle on a polished hardwood base **$139.99**
150 Square Brass Racer *(right)* Solid lacquered brass Iambic paddle mounted on a polished hardwood base. Magnetic action, no springs.. **$139.99**

Straight Keys *(left)* Unique mechanical action, unlike any straight key ever manufactured.
155 Standard..... **$149.99**
160 Deluxe..... **$189.99**
153 Gold **$279.99**

Deluxe Double Keys *(right)* Choice of iambic and straight or vibrokeyer and straight key. Double keys allow you to instantly switch from using an electronic keyer to the personal touch of a straight key.
165 Straight key/Iambic..... **$329.99**
170 Straight key/Vibrokeyer..... **$329.99**

NORCOMM TONE SIGNALLING PRODUCTS

TONE SIGNALLING

NC-101 Encoder Micro-mini. CTCSS encoder, field tunable to any of the CTCSS tone frequencies between 67Hz and 254Hz. 5 to 15VDC. 0.60"w x 0.80"l x 0.15"h ***NorFax™ #5040***..... **$21.99**

NC-104 Programmable Encoder Sub-miniature field programmable CTCSS encoder unit for limited space. Provides standard 37 EIA CTCSS tones + 69.37, 97.4 and 205.5Hz. 7 to 24VDC. 0.625"w x 0.80"l x 0.170"d ***NorFax™ #5150*** **$26.99**

NC-106 Programmable CTCSS Encoder/ Decoder A sub-miniature crystal-controlled digital unit. Field programmable with dip switches providing any one of the standard 37 CTCSS tones + 97.4Hz. 6-24VDC. 0.85"w x 1.35"l x 0.28"h ***NorFax™ #5230*** **$62.99**

NC-401 Touch-Tone® Decoder Unique micro-mini unit combining 2 distinct multi-addressable decoders for control of remote or local applications. Decodes all 16 DTMF characters with an address length of 1-14 characters and features E²PROM memory for storage of both primary and secondary codes, input/output functions, deadbeat disable and user outputs, plus default reset. Programming easily performed by means of a conventional DTMF encoder. 6-24VDC. 0.80"w x 1.37"l x 0.23"h. ***NorFax™ #5545*** **$62.99**

NorFax™ auto fax retrieval system – 530-477-8403

UM Unified Microsystems

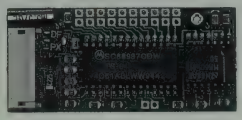
XT-4 CW Memory Keyer Designed for QRP, Field Day, mobile CW county hunting - any portable operation. Also goes well in the shack with smaller rigs. 8-45 WPM. **Memories:** 4 with 100 Morse characters each positive keying output only via RCA phono jack output. 1/8" (3.5mm) stereo jack input. Paddle reverse for left or right-hand operation. Auto power save mode w/flashing LED engages after 30 min. of inactivity. Requires 9V alkaline battery..... **$69.99**
KC-4 Cable set for XT-4..... **$9.99**

VK-64 Combination CW and Voice Keyer Store and play back CQs, contest exchanges, etc. in both CW and voice. Voice keyer has 4 memories (up to 15 seconds each). Set CW keyer between 10-45 WPM (4 memories programmable with 300 characters each). • Configure for iambic A/B keying, weight, side tone, and paddle reverse • Tune function • Auto repeat and 1/2 to 12-second delay (CW and message #1) • Run stand alone through panel or control with PC/laptop through printer port (standard 25-pin) • Use with major contest logging programs • 12V wall transformer power supply **$249.99**
VKC-8 Cable Shielded audio cable semi-kit wired and tested except for microphone and transmitter connectors (8-pin) **$29.99**

COMMUNICATIONS SPECIALISTS, INC.

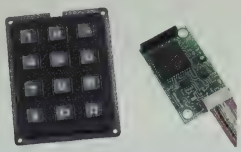
TONE ENCODERS & DECODERS

SS-64 Programmable CTCSS Encoder Super small for easy install in most HTs. Standard with 64 EIA tones between 33 and 254.1Hz. Individual tones dip-switch selectable 0.66" x 1.08" x 0.21", requires 6–28 VDC..... **$28.99**



TS-64DS Field programmable CTCSS Encoder-Decoder DIP switch programmable for 64 EIA tones 33-254.1Hz. 1.25" x 2", 0.3", 6–28 VDC..... **$57.99**

TE-32 Multi-tone Encoder Provides direct access from a front dial rotary switch to all EIA CTCSS tones from 67.0 to 203.5Hz, allowing users to access various repeaters. Great for mobile or test bench. 5.25" x 3.3" x 1.7", 6–30 VDC **$49.99**



ID-8 Multi-Featured Automatic Morse ID'er Programmable via 12-button pad • Eight changeable messages • 200 characters total • CW speed: 1-99 wpm • ID interval timing: 1-99 min. • ID hold-off timing: 0-99 seconds • CW tone: 100-3000Hz • 6-20VDC • 1.85" x 1.12" x .0.35" **$69.99**

Wiring diagrams and lists of *Fax-on Demand* documents can be obtained from **www.com-spec.com.**

AMECO

Combination Code Practice Oscillator and CW Monitor Volume control, 3" speaker, & headphone terminals. Requires a code key and a 9V battery **OCM-2K** *Kit* **$19.99** **OCM-2W** *Wired* **$24.99**

K-1 *(left)* Low-cost general purpose key w/phenolic base, adjustable tension, contact spacing.. **$10.95**
K-4 *(right)* Deluxe high quality key. Polished brass base, shorting bar **$16.95**

MFJ ENTERPRISES, INC.

FOR LEARNING/PRACTICING CODE

414 Professional Classroom Tutor Features include LCD readout, printer port and audio tape recording output. Build and save 3 custom sets for extra practice. Or combine these to obtain 48 characters for using the KOCH method. Customize random words for practice. Use with 144/440MHz FM HT or HF transceiver for on-air code practice. VECs can give up to 16 exams. Full-featured memory keyer (1000 character memory, semi/auto modes, iambic A/B, reverse paddle, change speed and tone on-the-fly). Practice sending into the 414 with iambic paddle or straight key. Use built-in or external speaker or headphones. Includes serial port cable and open-end patch cable. 12 VDC or 110 VAC. 8.5"w x 2.25"h x 6"d **$189.99**

554 Code Practice Oscillator Designed for classroom use with great sound that enhances learning of Morse code. Plenty of volume from a built-in 1W amp and 3" speaker. Volume control and adjustable tone control (400-1000Hz). On/off switch, power ON LED, 1/4" key jack, 3.5mm external speaker jack and DC input jack. Requires 12V DC. All-metal enclosure. 4.25" x 1.5"h x 5"d **$79.99**

550 Telegraph Key..... **$7.99**

AIDED CW SENDING/RECEIVING

452 Super CW Keyboard *(left)* A stand alone CW keyboard that includes an RFI suppressed keyboard, a two line 16-character non-volatile LCD display. Send effortless CW by just typing the characters as you see what you are sending on the display. No computer to boot up, no program to load. • Speed: 5–100WPM • Weight: 5–95% • Sidetone: 300–3000 Hz sidetone • Serial Numbers (0–9999) • Has buffer and memory full audible indicators. Keys solid-state and tube-type rigs. Requires 12VDC..... **$129.99**

462B MultiReader™ *(right)* Supply this unit with audio from a receiver or transceiver; tune in CW, RTTY, ASCII or AMTOR (FEC) signals; and read the auto decoded text directly from the 2-line, LCD display. • Copy most standard shifts and speeds in all modes • *AutoTrak™* feature helps track and decode high speed CW • 8K memory stores several pages • PLL modem technology digs out weak signals • Precision tuning indicator • Printer port • 6.25"w x 2.5"h x 6.25"d • Requires 12VDC..... **$169.99**

461 Pocket-Size Morse Code Reader™ No cables to hook-up and no other equipment needed. Simply hold the unit near your receiver and it instantly displays CW text in English! Automatic speed tracking and instant 140-character replay on a 32-character LCD. If desired, a serial port lets you display CW text on a monitor using a computer and terminal program. Connect directly to a receiver with optional cable when it's too noisy or CW is unwanted. • Battery saver (uses 9V – not included) • 2.25"h x 3.25"w x 1"d, 5.5 oz..... **$79.99**

5162 Receiver Cable Connects the 461 to a radio's external 3.5mm jack **$5.99**

464 CW Reader With Built-In Keyer This unit simply plugs into a transceiver's speaker/phone jack and key jack. Add a single or iambic paddle or computer keyboard and it's ready for easy, complete CW operation. Sends and reads CW at 5 to 99 WPM with automatic speed tracking. • Easy menu operation • Large 2-line LCD shows "send and receive" text • Front panel speed and volume controls • 4 message memories • Type-ahead and read-again buffers • Adjustable weight and sidetone • Built-in speaker • RFI proof..... **$169.99**

KEYERS

407D Deluxe Electronic Keyer Features dot-dash mem., self completing dots and dashes; jam-proof spacing. RF proof, instant start. Single squeeze, or straight key. Front panel controls: speed, weight, tone & volume, ON/OFF, tune, auto or semi-automatic. Selectable A or B-type iambic keying. Built-in speaker, uses 9V battery. 7"w x 2"h x 6"d .. **$69.99**

401D Econo Electronic Keyer II Similar to 407D with external speed and volume controls, internal weight and tune controls. Uses 9V battery **$49.99**

434 Contest Voice Keyer™ Microprocessor-controlled, transformer-coupled – No RFI, hum or feedback. Automatically call CQ and send a call. Store frequently used phrases, like *"CQ. Contest this is AASMT,"* in your own voice. Record and play back five natural sounding messages totaling 75 seconds. Repeat messages continuously and vary the delay from 3–500 seconds. Receive and play back off-the-air signals. Easy to use – plug in an 8-pin microphone cable then plug the 434 shielded cable into the mic input. Controls tailor audio level to match your voice. Built-in speaker and audio amplifier. Uses 9V battery, 9-15VDC or AC with optional adapter. 6.5"w x 2.5"h x 6.5"d **$169.99**

422D Keyer-Paddle Combo Keyer unit installs on top of Bencher iambic paddle. Uses Curtis™ chip. 9 to 50 wpm. Adjustable weight and tone, dot-dash memory and sidetone. Semi-automatic and tune or auto modes. Keys grid block, cathode or solid state. Uses 9V battery or AC adapter. 4.125"x2.625"x5.5"d **$159.99**

422DX Keyer only **$79.99**

490 Keyer/Bencher Paddle Combo A feature-rich keyer in a compact configuration that fits right on its own Bencher iambic paddle. Provides memories, morse trainer, sidetone, automatic serial numbering and more. 5"w x 3"h x 5.5"d. Uses 9-volt battery or 110 VAC with MFJ-1312D..... **$189.99**

492 Menu Driven Memory Keyer No complex sequences. Save messages, enter iambic, semi-auto, handkey, message queue, paddle modes. Select iambic A/B, Morse trainer, store starting serial numbers. Holds 192 characters in 4 memories (expand able to 8K+ characters in 8 memories. Front panel speed (5–100 WPM) and volume control for sidetone speaker. Direct and grid block keying. 9V battery or 110V AC adapter. 6.5" x 2.5" x 6.25" **$89.99**

451 Morse Keyboard Stand-alone CW keyboard with 200 character type-ahead buffer, and two 100 character messages. Requires 12VDC..... **$99.99**

452 Morse Keyboard with 16 character LCD display. Comes with keyboard **$129.99**

495 Millennium CW Keyer A powerful keyer combining the latest microprocessor technology with non-volitile memory. Easy-to-use menus and LCD display – send CW, load messages and set functions using a paddle, keyboard or serial port. Iambic mode works with direct or grid-block outputs. • PTT output, built-in speaker, sidetone • Iambic keyer with dot and dash memories • 32 message memories • Repeat message continuously • Insert timed pauses, auto-incrementing serial number, or embedded commands to change speed, weight, etc. • Message editing capability • Input queue to store multiple messages • Digital and analog linear speed control • Farnsworth method with speed from 10 - 99 wpm • Type-ahead keyboard buffer • Dual user/configuration mode..... **$149.99**

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MFJ Switching Power Supplies

Power your HF transceiver, 6 meter/2 meter/440 MHz Mobile/Base and accessories with these 25 or 45 Amp MFJ MightyLite™ Switching Power Supplies!

No RF hash . . . Super lightweight . . . Super small . . . Volt/Amp Meters . . .

4125

4225MV

4245MV

***Small* & Lightweight** – *MightyLites™* are so light and small you can carry them in the palm of your hand! Take them with you anywhere – no more hauling around heavy, bulky supplies.

Lightweight – The 25A *MightyLite™* only weighs 3.7 pounds – *5 times lighter* than an equivalent conventional power supply. And, the 45A model weighs just 5.5 pounds!

No RF hash – Some switching power supplies generate objectionable RF hash in your transmitted and received signal. But, these babies are clean!

Low Ripple and Highly Regulated – Less than 35 mV peak-to-peak ripple and better than 1.5% regulation under full load.

Fully Protected – You won't burn up these power supplies! They are fully protected with overvoltage and overcurrent protection circuits.

Worldwide Versatility – Switchable AC input voltage for 85-135 or 170-260VAC.

Mighty Features – Model **4225MV** and **4245MV** feature a front-panel voltage control which varies output voltage from 9 to 15VDC. Front-panel mounted 5-way Heavy Duty binding posts and cigarette lighter socket for mobile accessories. The **4245MV** has two sets of quick-connects on the rear for accessories. Dual three inch illuminated meters monitor load voltage and current. Internal fan.

Three models to choose from . . .

4125 (left) Basic, no metering. 25A maximum or 22A continuous. Size: 5-1/2 x 2-1/2 x 2-1/2 inches, 3.5 pounds **$99.99**

4225MV (center) 25A max. or 22A continuous. Size: 5-3/4 x 4-1/2 x 6 in., 3.7 lbs **$139.99**

4245MV (right) 45A max. or 40A continuous. Size: 7-1/2 x 4-3/4 x 9 in., 5.5 lbs **$189.99**

4103 Miniature Switching Power Supply – Delivers up to 40W (13.8 VDC @ 2.89A), RFI and Hash FREE. Only 4-1/8 x 2-5/8 x 1-3/8 in., weighs 10 oz. Ideal for the FT-817 and other QRP rigs. Input: 100-240 VAC @ 47–63 Hz. Over voltage, over current, and over temperature protected. Includes a DC output cable with a 2.1mm x 5.5mm plug that fits most MFJ, other ham accessories and QRP rigs. Adapter cable for the Yaesu FT-817 is included **$39.99**

MFJ 35/30 Amp Adjustable Regulated DC Power Supply

Massive 19.2 pound transformer . . . No RF hash . . . Adjustable 1 to 14 VDC . . .

Super Heavy Duty – This conventional power supply is excellent for powering all types of amateur transceivers and accessories. A massive 19.2 pound transformer allows this power supply to easily deliver 35A maximum and 30A continuous. It's highly regulated with load regulation better than 1% and ripple voltage less than 30 mV.

Fully protected – Over voltage, fold back and short circuit protection. A whisper quiet fan keeps components cool by increasing speed as load increases.

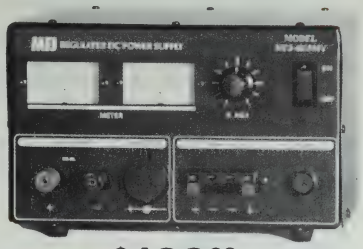
Adjustable Voltage – Front panel control allows adjustment from 1 to 14 VDC with a convenient detent set at 13.8V. Dual front-panel meters monitor voltage and current.

Versatile – There are three sets of output terminals including a pair of Heavy Duty, 5-way binding posts for transceivers, two pairs of quick-connects for accessories and a cigarette lighter socket for mobile accessories.

Size – 9-1/2 x 6 x 9-3/4 inches, 20.6 lbs.

MFJ's *No Matter What*™ One Year limited Warranty

MFJ will repair or replace (at MFJ's option) these products for 1 year.



4035MV **$139.99**

MFJ High Current Multiple DC Power Outlets

Distribute power to transceivers and 6 or more accessories from your 12 VDC power supply

1118 Deluxe Multiple DC Power Outlet – The most versatile and highest current rating. Connect to a 12VDC source and distribute power to 2 transceivers and 6 or more accessories. Features 2 pairs of Super Heavy Duty 30A, 5-way binding posts, fused RF bypassed and rated 35A total draw. And, 6 pairs of 5-way binding posts for accessories rated for 15A total draw. Master fuse, On-Off switch with power LED. Built-in 0-25 VDC voltmeter, 6 ft. of 8-gauge, color-coded cable with ring tongue terminals. Binding posts are spaced for standard dual banana plugs. Size: 12.5" x 2.75" x 2.5" **$74.99**

1116 Similar to the 1118 but does not have 30A posts. Has "Power On" LED and 0-25 VDC voltmeter. Rated at 15A total draw **$49.99**

1117 Similar to the 1118 but no meter, power LED or On-Off switch. Powers up to 4 radios at the same time. Two 35A single posts and one 35A dual post. Size: 8 x 2 x 3 in., fits almost anywhere **$54.99**

1112 Similar to the 1116 but no On-Off switch, power LED, voltmeter or fuse **$34.99**

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We accept I.M.P.A.C.® Government Credit Cards

ASTRON CORPORATION

POWER SUPPLIES

• 105–125V AC input, 13.8V DC output; internally adjustable from 11–15V • Electronic regulation with fold-back current limiting and crowbar overvoltage protection • Heavy-duty heat sink • 3-wire cord • 1-year warranty • Made in U.S.A.

Separate volt and amp meters on RS-20M, 35M, 50M and 70M. Separate volt and amp meters, plus voltage adjustment (2–15V DC) on VS-20ML, VS-35M and VS-50M. RM-35M, RM-50M and RM-60M are rack mount models, plus separate meters.

Model	Cont. Amps	ICS Amps	Size (in.) H W D	Shipping weight	Price
RS-7A	5	7	3.75 x 6.5 x 9	9	$59.99
RS-10A	7.5	10	4 x 7.5 x 10.75	11	69.99
RS-12A	9	12	4.5 x 8 x 10.75	13	79.99
RS-20A	16	20	5 x 9 x 10.5	18	99.99
RS-35A	25	35	5 x 11 x 11	27	149.99
RS-35A/220V	Same as RS-35A but 220V input				169.99
RS-50A	37	50	6 x 13.75 x 12	46	219.99
RS-70A	57	70	6 x 13.75 x 12	48	259.99
With separate Volt & Amp meters					
RS-20M	16	20	5 x 9 x 10.5	18	119.99
RS-35M	25	35	5 x 11 x 11	27	169.99
RS-50M	37	50	6 x 13.75 x 11	46	239.99
RS-70M	57	70	6 x 13.75 x 12	48	289.99
Adjustable output; separate Volt & Amp meters					
VS-20ML	16	20	5 x 9 x 10.5	20	139.99
VS-35M	25	35	5 x 11 x 11	29	189.99
VS-50M	37	50	6 x 13.75 x 11	46	259.99
Rack mount models; separate Volt & Amp meters					
RM-35M	25	35	5.25 x 19 x 12	38	249.99
RM-50M	37	50	5.25 x 19 x 12	50	279.99
RM-60M	50	55	7 x 19 x 12	60	359.99

POWER SUPPLIES WITH ADDED FEATURES

RS-4L Has a built-in cigarette lighter receptacle in the front panel. 13VDC @ 4A peak, 3 Amps continuous. 3.5"h x 6.5"w x 4.25"d, 6 lbs **$49.99**

RS-12S With built-in speaker. Rated 13VDC @ 12A peak, 9A contin. 4.5"h x 8"w x 9"d, 13 lbs **$89.99**

SWITCHING POWER SUPPLIES

SS-25 12V DC, rated 20A continuous, 25A ICS. 3"h x 7"w x 9.5"d, 4.2 lbs..... **$109.99**

SS-25M Same as above with volt and amp meters **$129.99**

SS-30 12V DC, rated 25 amps continuous, 30 amps ICS, 3.75"h x 7"w x 9.5"d, 4.5 lbs..... **$119.99**

SS-30M Same with volt/amp meters..... **$139.99**

POWER INVERTERS

12/115 General Purpose Converts 12V DC to 115VAC @ 60Hz. Provides convenient, mobile, AC house current (boat, car, truck, etc.). Powers a ham rig, small household appliance, TV, tools and lights up to 200W continuous (peaks up to 240W, overload protected). Produces square wave output, not recommended for devices where high transients are not tolerable. 4.5"h x 8"w x 9"d, 9 lbs C/O **$59.99**

N2412-12 28V Aircraft Converts 22–32V DC input to 13.8V DC output @ 9 amps. Eliminates tapping into a 28V battery for 12V power..... **$49.99**

N2412-24 Same as above, rated at 16A .. **$79.99**

AIM

SMALL POWER SUPPLIES

38-384 Light-duty DC Supply *(pictured)* Input: 115 V AC • Output: 13.8V DC regulated @ 4A • Front panel binding posts • LED indicator, fuse protection • 7.75"d x 4.75"w x 3"h, 5.5 lbs **$39.99**

38-305 AC Adapter Provides multiple low-voltage DC to operate various battery powered equipment requiring 3, 4.5, 6, 7.5, 9 or 12V DC with a max. current rating of 500ma. Multiple application plugs and 9V snaps fit most devices **$9.99**

38-312 Regulated AC Adapter Multi-voltage with multiple plugs and 9V snaps. Selectable 1.5, 3, 4.5, 6, 7.5, 9 or 12V DC regulated with a maximum current rating of 1200ma. to operate a wide range of battery operated devices..... **$29.99**

DIAMOND ANTENNA

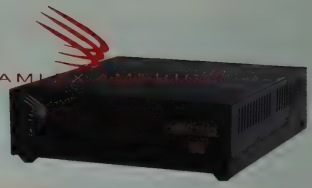
GZV-4000 Switching Mode DC Power Supply with Built-in Speaker 120V AC input • Variable output: 5–15V DC with center detent at 13.5V DC • 40 amps continuous rating, 100% duty cycle • Over temperature, overload, short-circuit protection with current foldback at approximately 42 amps • Overload indicator • Selectable monitoring of voltage and current • DC terminals on rear • Cigarette lighter jack on front • Filtered AC line • 8.25" x 13" x 4.5", 8 lbs **$179.99**

LA CROSSE TECHNOLOGY

3362U Power Cost Controller Provides monitoring of electricity consumption. Approximately 3W to 1800 W range, ideal for use with a large variety of 120VAC 60Hz (15A) appliances. • Cost monitoring and forecasting • Instantaneous power consumption (Watts) • Maximum load power (maximum Watts) • Total kWh consumption • Includes LR-44 button cell **$29.99**

RS-204U Remote Control Outlet System Control multiple outlets by remote control. Units plug into existing outlet to turn on/off lamps, tools, appliances, etc. – up to 20A. Operates up to 80', even through walls. Includes remote and 2 outlets. Uses 2 AAA batteries (not included)..... **$29.99**

SAMLEX AMERICA INC.



SEC-1223 Low Cost, Base Station Power Supply for HF, UHF & VHF Transceivers Switching mode design • 23 Amp rating • Current limiting • Short circuit protection • Overvoltage protection • Anodized black chassis and powder coat wrinkle black steel cover • Input: 110-120VAC, 200-240VAC • 4.9A input current • 13.8VDC output voltage • 23 Amps output current (24 Amps maximum) • 3-year waranty • 7.2" x 8.7" x 2.2", 3.3 lbs..... **$99.99**

TRIPP LITE THE POWER PEOPLE

COMPACT INVERTERS

PowerVerter® Ultra These low cost, DC-AC inverters provide access to AC power anywhere. Harnessing auto, boat, RV or service truck 12V power, they run power tools at remote work sites, household appliances at a campsite, or office equipment on the road. • Converts vehicle battery to AC power • Plugs into vehicle cigarette lighter • Electronic circuit protection • Low battery alarm and shutdown • Illuminated on/off switch • Built-in high-speed cooling fan (PV-300)

PV-140 140W maximum continuous power and 200W surge capacity • Modified sine wave • AC receptacle • 6"l x 3"w x 1.5"d, 1 lb. 4 oz.... **$42.99**

PV-300 300W maximum continuous power and 500W surge capacity • Modified sine wave • 2 AC receptacles • 6"l x 4"w x 1.75"d, 2 lbs..... **$65.99**

SURGE SUPPRESSORS

SUPER-7 For spike suppression and noise filtering, 18,000 amp surge suppression, and RFI/ EMI filtering. Seven outlets, 7-foot cord, three diagnostic LED indicators **$19.99**

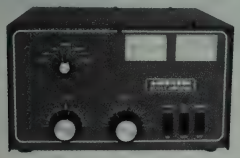
SUPER-7+TEL Same as above with 6 outlets and fax/modem protection for modular jacks.. **$29.99**

ISOBAR-8 ULTRA Premium Surge Protector Rugged all metal housing – won't break or burn • Isolated filter banks to eliminate interference between connected equipment • Massive 1,200 joule, 96,000 amp spike supression • Diagnostic alarm system indicates wiring faults, protection circuitry and power line status • 8 outlets, extra long 12' cord..... **$79.99**

AMERITRON

811A Amplifiers

- Cover 160-15M, including WARC/MARS bands
  User Modifiable for 10/12M with proper license
- All Modes
- HD silicon steel core Plate Transformer (17 lbs.)
- Tuned Input • ALC Control • Quiet Air Cooling
- Dual Meters show Plate Voltage, Grid and Plate Current • Vernier Reduction tuning
- Comes wired for 120V Operation
- Size: 15.5"d x 13-3/4"w 8.25"h, 52 lbs.



AL-811 – Uses (3) 811A transmitting tubes. Delivers 600W PEP output SSB and 500W CW..... **$599.99**

AL-811H – Uses (4) 811A transmitting tubes. Delivers 800W PEP SSB or 600W CW **$749.99**

3-500Z Amplifier

- Covers 160-15M, including WARC bands.
  User modifiable for 10/12M with proper license
- HD silicone steel core Plate Transformer (26 lb) and Computer Grade capacitors
- A Full KW PEP! (70% efficiency)
- Tuned Input • Adjustable ALC • Air Cooled
- Dual Cross-needle meters show SWR, Refl. PEP power, Plate voltage, Grid and Plate current
- Operates from 90-140 VAC or 205-250 VAC
- Size: 15-1/2"d x 14-1/2"w x 18-1/2"h, 48 lbs.

AL-80B – Uses a single 3-500Z transmitting tube. Delivers 1000W PEP output SSB and 850W CW. The high-voltage secondary can be wired to reduce plate voltage for efficient operation below 400W for use outside the USA **$1199.99**

Solid State Mobile Amplifier

ALS-500M – Uses (4) 2SC2879 RF power transistors. The ideal amplifier to increase your HF mobile up to 500 Watts. Continuous coverage 1.5–22 MHz* with instant bandswitching, no tuning, no warm-up and SWR protected. Runs nicely from 13.8 VDC mobile electrical system, draws 75A peak current. Size: 3-1/2 x 9 x 15 inches, 5-1/2 lbs. **$699.99**

Solid State Base Amplifier

ALS-600 – No tuning, no fuss, no worries – just turn it on and operate. Continuous coverage 1.5-22MHz*, instant bandswitching, SWR and over power protected. Full 600W output, includes AC power supply. Extremely quiet, very compact. Amplifier and power supply both 6" x 9-1/2 x 12 inches, 30 lbs., total. **$1129.99**

**Modification kit (MOD-10M) for 10/12M operation is available direct from Ameritron*

3CX-800A7 Amplifiers

- Cover 160-15M, including WARC bands.
  User Modifiable for 10/12M with proper license
- HD silicon steel core Plate Transformer (32 lb.)
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-Needle meters show SWR, Plate voltage, Grid and Plate current
- Operates on 90-140 VAC, 200-250 VAC
- Size: 8-1/2"h x 16-1/2"w x 13-3/4"d, 52 lbs.

AL-800 – Uses as a single *Eimac*® 3CX800A7 tube. Delivers 1250W PEP SSB output.....**$1629.99**

AL-800H Uses (2) *Eimac*® 3CX800A7 tubes. Delivers 1500W PEP SSB output.....**$2399.99**

572B Amplifier

- Covers 160-15M, including WARC bands
  User modifiable for 10/12M with proper license
- Heavy Duty silicone steel core Plate Transformer
- Instant 3 second warm up
- Tuned Input • ALC Control • Air Cooled
- Dual illuminated Cross-needle meters show SWR, Plate voltage, Grid and Plate current
- Multi-voltage Operation
- Size: 8-1/2"h x 15-1/2"w x 14-1/2"d, 40 lbs

AL-572 This *Near Legal Limit*™ amplifier uses (4) rugged 572B tubes. Delivers 1300W PEP SSB and 1000W CW continuous output for about 65% of the price a full legal limit amplifier..... **$1299.99**

Super Legal Limit Amplifiers

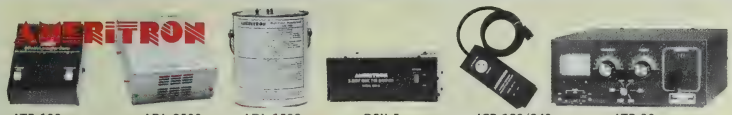
- Cover 160-15M, including WARC bands.
  User modifiable for 10/12M with license
- Strong Stainless Steel Chassis
- Highly efficient *PeterDahl* tape wound Hypersil® Plate Transformer, capable of 2500W
- Grid and Plate meters show drive, ALC, Power output and PEP Watts
- Size: 18"h x 17"w x 10"d, approx. 77 lbs.

AL-1500 – Uses a single *Eimac*® 8877 Ceramic tube. Only 65W of drive power delivers full legal 1500W CW output. Time-delayed start protects the tube and over-current shut-off removes the drive if amplifier is mistuned..... **$2599.99**

AL-1200 – Uses Ham radio's toughest tube, the *Eimac*® 3CX1200A7. It has a 50W control grid dissipation and can deliver more than 2500W two-tone output for a half hour **$2199.99**

AL-82 – Uses a pair of 3-500Z tubes. Delivers 1500W output which is more than other 3-500Z linears because their lighter weight power supplies can't use these tubes to their full potential **$2099.99**

We accept I.M.P.A.C.® Government Credit Cards



ATP-100 ADL-2500 ADL-1500 QSK-5 ICP-120/240 ATR-30

ACCESSORIES

ATP-100
Tuning Pulser – Safely tune up RF power amplifiers. Prevents overheating, tube damage, power supply stress and component failure **$49.99**

ADL-2500
Dry Dummy load – Rated 2500W average power for 1 minute on, 10 minutes off, 300W continouous. Air cooled, low VSWR up to 60MHz **$189.99**

ADL-1500
Oil Filled Dummy Load – Handles 1500W for 5 minutes. Usable with low VSWR up to 400 MHz. Includes oil and container as pictured **$69.99**

QSK-5
Pin diode T/R Switch – Faster than a vacuum relay. Connects externally to HF RF power amplifiers. Handles 2.5 kW PEP, 2 KW CW **$329.99**

ICP-120/240
In-rush Current Protector – Stops power-up in-rush current surge and absorbs momentary voltage spikes. ICP-120 for 110-120V; ICP-240 for 220-240V ..... each **$79.99**

ATR-30
1500W Antenna Tuner – Tune nearly any antenna system 1.8–30MHz. Rugged, heavy duty components, edge wound, silver-plated roller inductor. Cross-needle meter..... **$549.99**

RCS-8V
Remote Coax Switch – Selects one of five outputs using one feedline and 6-wire control cable. Rated 1KW @ 150MHz, usable to 250 MHz **$139.99**

RCS-4
Remote Coax Switch – Selects one of four outputs by supplying control voltages thru the coaxial cable Rated 1500W from 1.8 to 30MHz.. **$129.99**

ARB-704 RCS-4

ARB-704
Interface Buffer – Prevents damage to radio's internal relay contacts resulting from keying amplifiers with too much control voltage, excessive current or voltage spikes on the relay control line. Compatible with transceivers that provide a ground on transmit. Interface cables optional, requires 12VDC **$49.99**

ARB-704I2 for IC-706 only ... **$49.99**

AWM-30
SWR/Wattmeter – Uses a Cross-needle meter that reads Peak or Average on 300W/3KW ranges up to 30MHz..... **$139.99**

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MIRAGE

DOCKING BOOSTERS

Slide your handheld into a Mirage docking booster and it instantly becomes a powerful mobile or base! Mirage docking boosters have selectable HT voltages that let you use most handhelds. Place it on your dashboard or desk, or use mounting bracket mount for security and conveniece with tilt. • Boost your mobile or base station levels, up to 50W • Replace your HT battery • Becomes a secure and convenient HT holder • Requires 13.8 VDC

B-24-G For 2m FM Handhelds Up to 50W output with 0.5–8W input • 18dB GaAsFET preamp with on/off switch • LEDs show preamp on, on air, and transmit • 4.25"h x 3.35"w x 3.25"d • HT adapters available, see Price Guide..... **$114.99**

BD-25 For 2M/440MHz FM HTs Up to 45W (2M) & 35W (440MHz) with 0.5-8W input • Full duplex feature lets you simultaneously talk on one band and listen on another with a compatible HT • Auto band selection • LEDs show band and power-on • Reverse polarity protection • 5.25"hx 3.25"w x 3.35"d • HT adapters available, see Price Guide..... **$164.99**

ICOM

PW-1 HF + 50MHz Solid State Linear Amplifier Frequency range: 160-15m, 6m • Power output with 220V input: 1000 PEP SSB, 1000W CW/RTTY (100% duty cycle, QSK) • 100W drive • Built-in all band automatic antenna tuner • Automatic AC voltage selector and band change • Current, voltage, temperature, SWR, output power protectors • Wide range adjustable ALC allows use with almost any rig • Control head may be detached from main unit (shown) • Built-in 110/220VAC supply • 14"w x 10.5"h x 14.5"d, 56 lbs ..... **CALL**

YAESU

QUADRA SYSTEM HF/50MHz Solid-State Amp Frequency range: 160-15m, 6m • 1000W (6m: 500W) • 100W drive • 4 twin MOSFET PA modules • Dot matrix multi-function LCD • 2 input and 4 output jacks for easy connection to station antenna • Built-in high-speed auto antenna tuner • Panoramic SWR display shows "before tuning" and "after tuning" SWR data • SWR protection • Auto band switching with FT-1000, FT-1000MP, FT-1000MP MK V, MK V FIELD, and FT-920 • 117VAC for 500W; 220V AC for 1000W • 6.25" x 5.375" x 16.25", 59 lbs..... **CALL**

MIRAGE

VHF/UHF AMPLIFIERS

15 to 300 watts of brute power! Models for 6M–70 cm, base, mobile, repeater or ATV operation • 12V DC • FM (SSB/CW on some models) • 20dB gain GaAsFET preamplifier • Overdrive and high temperature protection • Remote control capability

Model	MHz	Max Input	Max Output	Amps	Pre-amp	Price
A-1015G	50-52	1-15W	150W	23	yes	$349.99
B-34	144-148	8W	35W	4	no	69.99
B-34G	144-148	8W	35W	4	yes	89.99
B-215G	144-148	0.25-5W	150W	20	yes C/O	279.99
B-1018G	144-148	0.2-15W	160W	25	yes	369.99
B-2518G	144-148	20-35W	160W	25	yes	299.99
B-2530G	144-148	10-35W	300W	48	yes	689.99
B-5018G	144-148	20-60W	160W	22	yes	299.99
B-5030G	144-148	0.5-50W	300W	48	yes	669.99
B-310G	144-148	0.25-8W	100W	15	yes	179.99
B-320G	144-148	2.5-50W	200W	25	yes	429.99
BD-35	144/440	1-7W	45/35W	7	no	149.99
C-22G	222-225	2W	20W	5	yes	154.99
C-211G	222-225	2W	110W	20	yes	329.99
C-1012G	222-225	10W	120W	25	yes	329.99
C-1022G	222-225	10W	220W	20*	yes	689.99
C-2512G	222-225	30W	120W	25	yes	309.99
D-15N	425-450	2W	15W	3	no	169.99
D-26N	430-450	2W	60W	12	no	259.99
D-1010N	430-450	10W	100W	15	no	379.99
D-3010N	430-450	30W	100W	20	no	349.99
D-1010ATVN	430ATV	10W	100W	20	no	399.99

N = Type-N connectors *at 28VDC

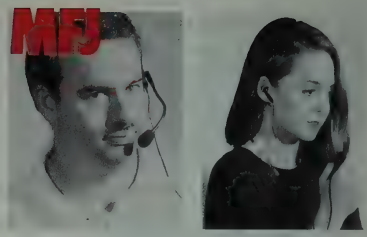
RC-1 Remote Control Head For most Mirage amps. Power/preamp On/Off, SSB/FM mode switch. 18" cable. 1.25h" x 3.75"w x 2.25"d **$45.99**

RC-2 Remote Control Head Same as the RC-1 but works only with the Mirage B1018G, B2518G and B5018G amplifiers **$45.99**

SGC

SG-500 (52-96) SmartPower Cube™ Fully automatic band switching, microprocessor-controlled, HF linear amplifier. Ideal for fixed, mobile, and marine operation. Nearly indestructible! Cast-aluminum enclosure, extra heavy duty heat sinks, powder coat finish and durable electronic components. Microprocessor auto adjusts amp input sensitivity, monitors all parameters for faults (heat, VSWR, undervoltage, etc.) and auto selects the correct broadband filter. Operates unattended! • 1.6–24MHz • 500W PEP with 50-90W input • CW rating: 500W output for 10 min., or unlimited with optional fan • 10–18 VDC @ 40A average (SSB), 90A peak, or CW • 6"h x 12.25"d x 11.4"w, 21 lbs **$1249.99**

MFJ



HEADSET MICS

Deluxe Headset Microphone *(left)* Lightweight and comfortable. Superb transmit audio, and earphone tonal quality. A foam covered microphone element is attached to the headset with a flexible rubber boom allowing proper positioning. A small PTT switch attached to the 6' cord can be held or attached to your clothing. Order **288I** for Icom, older Yaesu, Standard, ADI, Radio Shack and compatibles • **288K** for Kenwood and compatibles • **288Y** for Yaesu FT-10, 50, VX-series ea. **$24.99**

292Y Featherweight™ Earphone/Mic *(right)* Has an earbud earphone and a tiny thumb-sized microphone/PTT switch that's built right into the 4 ft. cord. Works with Icom Q7A, Yaesu FT-10R, FT-40R, FT-50R and VX series transceivers **$17.99**

MICROPHONES

297 Desk Microphone *(left)* A sensitive condenser microphone element coupled with a low-noise amplifier. Speech tailored - select *SSB Mode* for smooth, articulate DX punch or *Full-range Mode* for clear FM or AM operation. Flexible microphone boom, momentary and locking PTT switch. On-the-Air LED indicator, frequency up/down switch. Base with rubber feet is 4"w x 1-1/4"h x 6"d. Requires (2) "AA" batteries. **$69.99**

5397 Adapters for 297 8-pin or modular for Icom, Kenwood, Yaesu (5397MI **Special Order**) .. **$15.99**

295Y Mini Speaker Microphone *(right)* For popular Yaesu handheld transceivers (FT-10R, 40R, 50R, VX-1R) and Icom IC-Q7A. Uses a non-directional electret element. Transmit LED. For Icom order **295I** or **295K** for Kenwood ..... ea. **$15.99**

HEADPHONES

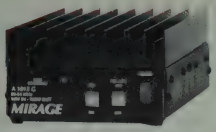
392B Communications Headphones Perfect for amateur radio and shortwave listening, and great for all modes. Superb padded headband and ear cushion design, plus it's lightweight - only 8 oz. High-performance driver units with a full 100Hz-24,000 Hz frequency response provide enhanced sound and outstanding speech fidelity. Each earphone has individual volume and tone controls. Comes with gold-plated plug and 9' cord. Mono or stereo, Includes 1/4" adapter **$19.99**

MIRAGE Power Amplifiers

Boost Mobile, Base or Handheld Power!

All Modes: FM, SSB, CW . . . Superb GaAs FET preamplifier in G Models
Overdrive, high SWR, Over-temperature protection . . . Remote controllable

2 Meters All Mode 160W • 200W 300W



B-5018G 160W output with 50W input. Requires 17 to 24 amps @ 13.8VDC. Low Noise GaAsFET Preamplifier. 5-1/2"w x 3"h x 12"d..... **$299.99**

Power Curve – typical for the B-5018-G									
IN	0.5	5	8	10	15	20	25	35	50
OUT	---	52	99	119	125	130	135	145	160

B-2518G 160W output with 25W input. Low noise GaAs FET preamplifier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d.. **$299.99**

Power Curve – typical for the B-2518-G									
IN	0.5	5	8	10	15	20	25	---	---
OUT	5	56	91	111	135	153	160	---	---

B-1018G 160W output with 10W input. Low noise GaAsFET preamplier. Requires 17 to 24 Amps @ 13.8VDC. 5-1/2"w x 3"h x 12"d..... **$369.99**

Power Curve – typical for the B-1018G									
IN	0.5	5	8	10	---	---	---	---	---
OUT	30	150	155	160	---	---	---	---	---

B-2530G 300W output with 25W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$689.99**

Power Curve – typical for the B-2530G									
IN	1	3	5	10	25	---	---	---	---
OUT	30	95	140	250	300	---	---	---	---

B-5030G 300W output with 50W input. Low noise GaAsFET preamplier. Requires 48 amps @ 13.8VDC. Size: 12"w x 5"h x 12"d..... **$669.99**

Power Curve – typical for the B-5030G									
IN	1	3	5	10	25	50	---	---	---
OUT	---	---	55	150	220	300	---	---	---

B-320G Up to 200W output. Low power input for Handheld Radios 250mW to 10W. High power input for mobile radios, 10W to 50W. Low noise GaAS FET preamplifier. **$429.99**

35W/100W for your HT

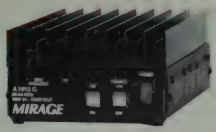
B-34G (left/bottom) Boosts 2M HTs with up to 8W output to 35W+ output. SSB/FM. GaAsFET preamp and mobile bracket. 13.8 VDC @ 4A..... **$89.99**

B-34 (left/top) Like B-34G but FM only, no preamp or mobile bracket. 3-1/8" x 1-3/4" x 4-1/4".. **$69.99**

B-310G (right) Boosts 0.25 to 8W 2M Handhelds to 25 to 100W+ output. Includes preamp, mobile mounting bracket & BNC to amp patch cable. 13.8 VDC @15A. 4-3/4"w x 1-3/4"h x 7-1/4"d. **$179.99**

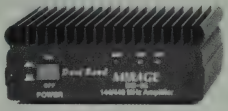
Power Curve – typical for the B-310G									
IN	.25	0.5	1	2	4	6	7	8	---
OUT	25	50	75	95	100	100	100+	100+	---

6 Meters All Mode 150W



A-1015G Covers 50 to 52MHz and provides 150W output with 10W input; FM/SSB/CW. Built-in Low Noise GaAsFET receive preamplifier, internal T/R switching and remote keying. 13.8 VDC @ 18-23 Amps. 5-1/2"w x 3"h x 12"d., 5 lbs **$349.99**

2M/440 Dual Band 35/45W



BD-35 For DUAL-BAND HTs with up to 7W output. Produces up to 45W output on 2M and 35W on 440 MHz. Automatic band selection, full duplex operation. Single connector for dual band radios and antennas. 12-15 VDC @ 7A. Size: 5"w x 1-3/4"h x 5"d. Mobile bracket included..... **$149.99**

Power Curves – typical BD-35 output power								
Watts Out (2M)	30	40	45	45+	45+	45+	45+	45+
Watts Out (440 MHz)	16	26	32	35+	35+	35+	35+	35+
Watts In	1	2	3	4	5	6	7	8

REMOTE CONTROL HEADS

RC-1 – Allows remote control of Mirage amplifier functions: Power and pre-amp On-Off, FM/SSB mode select. Only 1.75" x 3.75" x 2.5". Comes with 18 ft. head to amplifier control cable. **$45.99**

RC-2 for B-XX18G series amplifiers..... **$45.99**

More MIRAGE amps...

including models for 220MHz, 430-440MHz. Also, continuous duty Repeater Amplifiers for 6, 2, 1-1/4 meters, 70 cm, 450 MHz & ATV.

See the Price Guide under MIRAGE

Low Noise GaAsFET Receive Preamps

- Improves weak signal reception
- <0.8 dB Noise Figure
- 15–22 dB gain with selectable level prevents receiver overload and intermodulation
- Automatic TR switching up to 100W thru put
- Rugged die-cast enclosures
- In-Shack or Mast-Mount models

In-Shack Models – $129.99 ea.

KP-1/10M for 28-30MHz **KP-1/6M** 50-54MHz
KP-1/2M 144-148MHz **KP-1/220** 220-225MHz
KP-1/440 430-450MHz

Mast Mount Models – $179.99 ea.

KP-2/6M for 50-54MHz **KP-2/2M** 144-148MHz
KP-2/440 430-450MHz
KP-2/10M 28-30MHz – Closeout **$139.99**
KP-2/220 220-225MHz – Closeout **$149.99**

MFJ DC Power for your MIRAGE Amplifier

4035MV Heavy Duty - the transformer alone weighs 19.2 lbs! Voltage front panel adjustable 0–15 Volts. Dual meters show Volts and Amps. Rated 30A continuous, and 35A peak. Fully regulated and fully overload protected. 110 VAC..... **$139.99**

VECTRONICS

. . . fine amateur radio products

Versatile 300W Antenna Tuner

VC-300DLP Match any antenna • Full 1.8-30 MHz coverage • Rated 300W PEP, 200W continuous; 150W on 1.8 MHz • Continuous rotation capacitors and 12-position switched inductor • Peak reading backlit Cross-Needle Meter • Built-in 8-position antenna switch and dummy load 10-1/4"w x 9-1/2"d x 3-1/2"h, 3.4 lbs **$149.99**

High Power Roller Inductor Tuner

HFT-1500 Match any antenna Full 1.8-30MHz coverage • Rated 2KW PEP, 1KW continuous • Three continuously variable components: two 4.5kV capacitors and a crank driven a roller inductor with digital counter • Lighted Cross-Needle SWR/Wattmeter and 20-segment Digital Bargraph • Built-in 6-position coax switch and 4:1 balun • 5-1/2"h x 12-1/2"w x 12"d, 10 lbs..... **$399.99**

More Vectronics Amateur Products

AT-100 Tuned active SWL antenna..... **$79.99**
CK-200 Deluxe CW keyer ..... Closeout **$69.99**
DL-300M 300W dry dummy load..... **$44.99**
DL-650M 1500W dry dummy load..... **$74.99**
DL-2500 2500W dry dummy load **$179.99**
VC-300M 300W mobile tuner..... **$99.99**
VC-300D 300W tuner w/digital bargraph.. **$179.99**

HPF-1 75/300Ω high pass TVI filter..... **$24.99**
HPF-2 Dlx. 75/300Ω high pass TVI filter .. **$29.99**
PM-30HF 1.8-60 MHz SWR/wattmeter..... **$79.99**
PM-30UV 144/220/440MHz SWR/wattmeter. **$89.99**
LP-30 1500W low pass filter **$69.99**
LP-2500 2500W low pass filter **$129.99**

See the Price Guide for a list of Vectronics Kits

GOLDLINE

FULL RANGE DUAL ELEMENT MICROPHONES

Provides full-range, smooth and articulate audio for AM, FM and "HI-FI" SSB. The wide 60 –16 kHz frequency response, with a +4 dB midrange peak @ 2 kHz, produces brilliant articulation for clear, understandable SSB audio, and adds a well-balanced robust low end.

In addition, the GOLDLINE comes equipped with a second **HC-4** or **HC-5** element for *extra punch* when you need it.

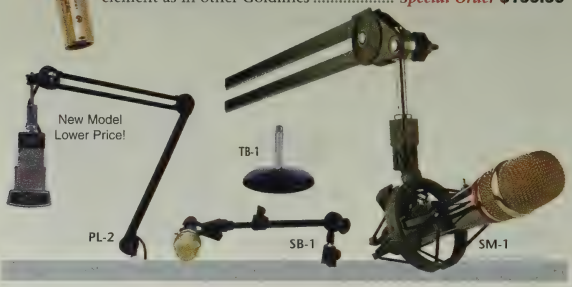
The diecast body is finished in high lustre black lacquer and topped with a crushproof golden grill. A "wide-narrow" switch selects the second element, and a "soft touch" microswitch provides smooth, noise free PTT operation. Requires a CC-1 adapter cable.

GM-4 GOLDLINE with Full Range and HC-4 elements.... **$140.99**
GM-5 GOLDLINE with Full Range and HC-5 elements.... **$140.99**

GM-V "Vintage" GOLDLINE – A built-in matching transformer allows its use with older rigs like Collins, Hallicrafters, Johnson, etc. Uses the Full Range element and switchable Passive EQ circuit or an alternate narrow, more articulate response..... **$155.99**

20th ANNIVERSARY COMMEMORATIVE GOLDLINE

HSP Special Presentation Sports a gorgeous high gloss gold lacquer finish, laser engraved with a serial number (1-200). Comes with wooden case, laser engraved with the famous HEIL logo. Equipped with a single full-range broadcast element and Narrow/Wide switch, however it does not include the narrow HC element as in other Goldlines ..... *Special Order* **$199.99**



BASE, BOOM/CLAMP ASSEMBLIES

PL-2 Professional Studio Boom Built by the Wizards at Heil, this perfectly balanced arm has internal springs that are very quiet when moved. Balanced for a 2 pound microphone. Long, 41 in. reach, 5.8 in. x 27 thread for mike clip or the Heil SM-1 shock mount. Comes with a "C" clamp-type mount..... **$65.99**

SB-1 Small Microphone Boom – Extends from 10 to 20 in. Clutch system and "C" clamp mount keeps the microphone in place under any conditions. **$33.99**

TB-1 Table Base Mount – For HM's, ICM or GOLDLINE microphones. Heavy, 2 lb,10 oz. cast metal base with non-skid cork feet, 6 inches high..... **$25.99**

SM-1 The Ultimate Shock Mount – Mounts on boom, 8-point flexible suspension supports and isolates GOLDLINE or HM's, reduces mechanical vibration **$50.99**

HIGH PERFORMANCE MICROPHONE ELEMENTS

For improved audio performance, replace the cartridge in your factory microphone with a Heil; the same elements used in their High-Performance microphones. Tiny in size, easily replaces existing cartridges in most microphones.

HC-5 – Full Range Articulation
Makes any rig sound better and more intelligible by providing full articulation and clarity. The response is 350–4000Hz, with a sharp roll-off under 300Hz and above 3100Hz, with a peak at 2100Hz. The result is very clear, easy-to-understand SSB audio for everyday communications that will get you lots of compliments..... **$30.99**

HC-4 – The "DX Dream Machine"
Super clarity with more punch for contest, DX and weak-signal VHF/UHF work. Outstanding results on aurora, backscatter, etc. Produces a high-pitched, pile-busting 500–3800Hz response with a 10dB peak @ 2000Hz, and a sharp 12dB per octave roll off @ 500Hz. It's a penetrating sound, not particularly pleasing for everyday rag chewing..... **$30.99**

the CLASSIC

1930s Replica

An exact replica of the RCA 74B broadcast microphone. High quality, all metal construction - no plastic. Dual elements, featuring the new **PROLINE** broadcast dynamic element with a 50-18kHz response, plus your choice of the second communications element, easily switchable from the back panel, along with the 'soft touch' PTT switch. Dual impedance – a small slide switch on the bottom selects 600 or 30k ohms. The stainless steel trimmed cast steel base is removable and the logo can be rotated for inverted mounting on the new PL-2 Heil PROLINE boom. Needs a CC-1 cable. Heil Sound mails your call letters after purchase.

HCL-5 (w/HC-5)... **$229.99** • **HCL-4** (w/HC-4)... **$229.99**
HCL-iC for early ICOM–prePRO... *Special Order* **$229.99**

the iCM

High Performance Microphone for early *(pre-PRO)* ICOM transceivers

The f.e.t. electret element provides plenty of drive, great sound and plenty of punch for those older ICOMs that lacked enough gain to work well with high quality Heil or other dynamic elements. When using it with the high gain inputs of the new PRO series, simply reduce the microphone gain to acceptable ALC levels.

Beautiful platinum finish, soft touch PTT switch. Has an attached 8-pin ICOM cable with jack for the FS-2 foot switch or HS-1 hand switch. Fits all Heil booms and shock mounts..... **$89.99**

STUDIO-STYLE MICROPHONES

Old favorites upgraded with a new body and PTT switch like the GOLDLINE. The **HM-10** comes with your choice of a HC-4 "DX Dream Machine" or HC-5 "Full Range Articulation" element. The **HM-10 Dual** contains both the HC-5 and HC-4 elements (switch selectable), a choice for varying conditions. Both need a CC-1 cable.

HM-10-4 (HC-4) or **HM-10-5** (HC-5) ..... each **$65.99**
HM-10-DUAL (HC-4 and HC-5) **$115.99**

HAND MICROPHONES

HMM Dual Element – Heavy duty, commercial quality. Uses a "Full Range Dynamic" element and a switch selectable HC-4 "DX" element. Internal noise canceling cavity reduces background pick-up. The coiled cable is terminated with an 8-pin plug for KENWOOD or YAESU (specify) – not for ICOM..... each **$78.99**

HMM-iC Single Element – Same as HMM, but contains a HEIL "Electret Condenser" element designed specifically for outstanding performance with ICOM radios (no HC-4 or switch)..... **$58.99**

ADAPTER CABLES/ SWITCH/ETC.

CC-1 Adapter cable – Required for the GOLDLINE, and HM's. Specify the cable with connectors to match Drake, Icom, Kenwood, Ten-Tec or Yaesu radios. The 6 ft. cable is wired with a 1/4 in. female jack to accommodate the plug from a FS-2 Footswitch or HS-1 Pushbutton Hand Switch. (Specify radio)..... ea. **$30.99**

HS-1 Pushbutton Handswitch – Plugs into CC-1 jack for PTT control of your radio. A 6 ft. cable terminates into a 1/4 in. phone plug..... **$25.99**

FS-2 Dual Footswitch – Heavy duty and ergonomically correct with the hinge UNDER the heel. Two 10 amp switches activate in sequence for transceiver and amplifier control. Separate contol cables with standard phone plug..... **$38.99**

AD-100 Microphone/Boomset Adapter – Allows use of all HEIL products with the YAESU FT-100 series. Solves the problem of the multiplexed microphone, touch tone audio and control data appearing on the microphone line..... **$25.99**

HD-AT Headphone Attenuator/Adapter – Allows 1/4 in. headphone jacks to plug into a 1/8 in. jack. Contains a -6 dB pad which reduces output and allows use of HEIL headsets with FT-100 or IC-706 without overload and distortion..... **$5.99**

XT-1 Matching Transformer – A sub-miniature unit that matches Low–Z microphones to High–Z inputs used in older Collins, Drake, Hallicrafters, etc..... **$15.99**

Headset/Boom Microphones

The Standard for leading Contesters and DXers Worldwide!

PRO-SETS – **Rugged, lightweight boomsets designed for performance and comfort during extended wearing times. The padded, fully adjustable headband provides maximum comfort. Heavily padded vinyl earpads seal out noise, and are removable for washing. The flexible microphone boom is fully adjustable to your liking. Cables are wired with 1/4 in. stereo plug and 1/8 in. transmit audio plug and use a Heil AD-1 ($17.99) to conveniently adapt to various radios.**

PRO-SET-PLUS Maximum comfort and noise seal is provided by new full cover leatherette ear pads with removable cotton covers. The cushioned inner headband is self-adjusting for a perfect fit, and the boom swings 180° for left or right side operation. Includes switchable, dual microphone elements; the Heil HC-5 for normal operation, the HC-4 for DX. The boom and top headband have rugged but flexible internal steel bands, and can be adjusted as you wish without fear of breaking. Great sound from frequency tailored speakers mounted in tuned cavities, and a phase reversal switch changes the sound field. The audio changes from being heard "centered" in your head, to a spatially widened effect. This feature greatly reduces listening fatigue and in some conditions can reduce noise and enhance intelligibility **$189.99**

PRO-SET-PLUS-IC Same, but for ICOM, has HC-4 and 'ic' elements and adapter cable **$206.99**

PRO-SET-4 Lightweight comfortable headset with flexible boom and HC-4 "DX" element. Uses the Heil AD-1 cable system for compatibility with different radios **$130.99**

PRO-SET-5 Same, but with the HC-5 "Full Range" element **$130.99**

PRO-SET-IC Same, but for ICOM with 'ic' Electret element and adaptor cable **$147.99**

BM-10 Series Headset/Boom Microphones – featuring a lightweight (8 oz.), soft and comfortable headphone for prolonged use in contests, etc. The high performance boom microphone is available with the Heil HC-5 "Full Range" or HC-4 "DX"element. The cord is wired with 1/4" stereo plug and 1/8" transmit audio plug and uses a Heil AD-1 ($17.99) to adapt to various radios.

BM-10-4 with the HC-4 "DX" element **$89.99**

BM-10-5 with the HC-5 "Full Range" element **$89.99**

BM-10-iC Headset/Boom Microphone for ICOM only A special FET Electret element produces plenty of articulate audio for ICOM radios, includes adapter cable **$106.99**

BM-5 SERIES Same as the BM-10 but with a Single Headphone. Great for mobile!

BM-5-4 with HC-4 "DX" element **$69.99**

BM-5-5 with HC-5 "Full Range" element **$69.99**

BM-5-iC with HC-5 "Full Range" element, designed for Icom radios **$86.99**

TRAVELLER Single-side Headset/Boom Microphone Uses a high performance electet element and features Up/Down and PTT in-line switches. Includes a 3 ft. interface cable Lightweight and comfortable, usable with left or right boom position.

Traveler-K for 8-pin KENWOOD
Traveler-KM for modular KENWOOD
Traveler-706 for the IC-706
Traveler-8PIC for 8-pin ICOM
Traveler-817 for the FT-817

$89.99 each

PROLINE DIVISION
Affordable Performance

Heil Sound...

introduces a new division dedicated to the design of high quality audio products exclusively for the commercial broadcast, recording studio and concert tour uses, requiring a smooth, wide response over a very wide frequency range. The New Heil PROLINE dynamic element has the sound of a condenser with excellent transient response, very low IMD and reduced proximity effect. It achieves its exceptional performance by using a powerful magnet structure of Neodymium, Iron and Boron with a 1-1/8 in. quilted aluminum alloy, low mass voice coil assembly suspended above the magnet structure. A phasing plug with equally spaced ports senses audio from behind the source entering them out of phase producing a very linear cardioid pattern that reduces the proximity effect while achieving the extreme articulation across a smooth 40Hz-18 kHz. response. True 600 ohm balanced output for direct connection to a mixing console with balanced input. For input to an unbalanced amateur transceiver input use one of the special XLR cables listed below. The Classic features an extensive sorbothane mount rubber shock mount and a blast filter designed by Heil for minimum handling and breath noise.

PROLINE Specifications:

Generating Element: Dynamic
Body: Mat steel, die cast zinc
Response: 40 Hz to 18 kHz
Impedance: 600Ω balanced
Output level: -5.5 dB @ 1,000Hz
Polar pattern: Cardioid, uniform front to back discrimination
Diaphragm: Large diameter, low mass aluminum

CLASSIC PRO – $269.99

HCL-P Truly a remarkable dynamic microphone. An exact reproduction of a 1930 broadcast microphone mounted on a removable stainless steel trimmed base which allows the Classic Pro to be inverted on the end of the new Heil PL-2 PROLINE BOOM. It features the newly designed 600Ω balanced Heil PROLINE element with the sound of the most expensive condenser microphone. It's smooth warm sound with beautiful mid-range and upper articulation is unmatched. Designed to be used into a balanced input, but by using an XLR cable, it will work into the unbalanced inputs of popular amateur radios. It has no PTT switch but the XLR cables have a PTT 'pig tail' for the FS-2 footswitch plug.

GOLDLINE PRO – $130.99

GLP A professional quality dynamic cardioid microphone designed for commercial broadcast, recording and live sound reinforcement applications which require a smooth flat response over a wide frequency range. Using the Heil PROLINE microphone element which produces excellent transient response, low IMD and reduced proximity effect the GOLDLINE PRO is truly a remarkable dynamic microphone. As with the CLASSIC PRO, the GOLDLINE PRO has true 600Ω balanced output and using an XLR cable, can also be used with most popular amateur radio transceivers.

ACCESSORIES:

CC-1 XLR Mic Cable (Goldline PRO) for 8-pin Icom PRO, Yaesu or Kenwood ..... *Special Order* **$30.99**

FS-2 Footswitch **$38.99**

PL-2 PROLINE Boom **$65.99**

Classic & Goldline Pro available on Special Order

KOSS stereophones

KTX/4 Lightweight, Portable Stereophone *(left)* Frequency response: 40-20,000Hz • Collapsible design for easy storage and portability • Straight, dual entry, 4' cord with 3.5/6.4mm stereo plug • Volume control on the cord for easy level adjustment • Sensitivity: 95dB SPL/1mW • Impedance: 32Ω • 2 oz..... Closeout **$14.99**

QZ/99 Passive Noise Reduction Stereophone with Mono/Stereo Switch *(right)* Frequency response: 40-20,000Hz • Coiled, single entry, 8' cord with 3.5mm/6.4mm plug • Sensitivity: 102dB SPL/1mW • Impedance: 60 Ω • 15 oz..... **$59.99**

QZ/2000 Noise Reduction Stereophone Revolutionary Active Noise Reduction system reduces harmful/annoying low frequency sounds in noisy places • >15dB SPL from 40-200Hz; average of 10dB SPL from 30-1000Hz • Frequency response: 15-20,000Hz • Straight, dual entry, 4' cord • Compact control case and collapsible stereophone • Adjustable headband • Input jack for audio play-through and 2-prong adapter for in-flight use • Sensitivity: 101dB SPL/1mW • Impedance: 5kΩ • Includes 2 "AA" batteries • 2.3 oz..... **$179.99**

KTX/8 Portable Stereophone Dynamic element for extended frequency response from 40-20,000Hz • Foam ear cushions for open, hear-through sound • Volume control on the cord for easy level adjustment • Collapsible headband design for protective storage and maximum portability • Reliable "L" plug for improved durability & reliability • Straight, single entry 4' cord **$14.99**

Y-88 "Y" Cord Delivers dual stereophone connection from a single sound source. Reliable "L" plug for improved reliability and durability..... **$4.99**

PREMIER communications

SPM-100 Small Speaker/Mic This is a lightweight, compact unit. The microphone features a high-quality condenser-style mic element and high-fidelity audio circuit that produces excellent transmitted audio clarity, as well as a powerful speaker. It may be secured to the user's lapel or shoulder..... **$27.99**

SPM-400A Mini Boom Mics The SPM-400A headsets include an in-the-ear speaker and a rubber-covered earloop design that adjusts to comfortably fit either the right or left ear of any user. The unit features an in-line Push-To-Talk switch that can be clipped to the user's lapel or belt **$39.99**

See the Price Guide to find correct model numbers for your specific brand of radio.

YAESU

Choice of the World's top DX'ers℠

MD-200A8X Ultra-High Fidelity Desktop Microphone Designed for base station use with the MARK V FT-1000MP. Employs a studio-quality, wide range (30-17000Hz) dynamic element optimized for High Fidelity SSB operation. An exclusive Variable Side Pressure Control (VSPC) allows user adjustment of the overall frequency response. Adjustable from a totally-flat, natural, high-fidelity sound for everyday S-9+ rag chewing; or high-articulation with a moderate peak above 1500Hz, for DX or Contests. • Aluminum die-cast base with locking and momentary PTT switches • UP/DOWN scanning switches • Bright red LED • Housing can accommodate the addition of a favorite DX or Contest microphone element • Also works with the FT-847, FT-920, FT-1000MP and MK V FIELD (also with the FT-1000/FT-1000D, without "TX" LED) • Includes a dual-connector cable with regular and modular mic plugs • 4.7"w x 12.6"h x 4.9"d, 2.2 lbs **$379.99**

ASTATIC

SILVER EAGLE D-104 Mic, Final Addition Few products in U.S. history have achieved the renowned status of the Silver Eagle. From lollipop design to time-honored break-thru sound, the D-104 has pleased communication enthusiasts for 8 decades. Includes collector's case, certificate of authenticity, engraved serial number, and name plate..... Closeout **$199.99**

KENWOOD

HS-5 Deluxe Headphones Specifically designed for use with communication systems. It provides natural sound and eliminates uncomfortable pressure feeling which permits long hours of fatigue free listening. To increase the volume level or when you are using the headphones in a noisy room or want privacy, replace the ear-pads with the vinyl leather ones. These are pressure-fit type ear-pads and will increase the sound pressure by about 10dB while sealing out noise. Both types are included. Includes 6 feet connecting cord with plug. Impedance: 8Ω • Maximum input: 200mW @ 1000Hz) • Frequency response: 150-4000Hz (-6dB) • Approx. 350g..... **$79.99**

MOTOROLA

HEADSET

53725 FRS Headset with Swivel Boom Mic Allows you to clearly hear messages from Motorola FRS units in high noise areas or in quiet environments without disturbing others. Transmit messages without removing radio from belt or case. Enjoy hands-free talk when used with a Voice Activated Transmission (VOX) capable TalkAbout..... **$14.99**

HF-24RS Headphones For Scanners Designed specifically for racing fans. • Adds to the excitment when using a scanner at the races • Listen in on driver–to–pit conversations with reduced noise • Snug fit, cushioned headband for wearing comfort • Comfort fit cushions let you hear the action over crowd and engine noise • Dual volume control to maximize hearing levels • Includes 3.5mm, Premium Gold, right-angle plug with a 10' coiled cord **$19.99**

Look For This NEW & Check Out AES' Latest Additions.

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

K-COM

TELEPHONE RF INTERFERENCE FILTERS

Cure telephone RF interference in the most irritating cases even when dealing with transmitters with full legal power output. Use any number of filters with no adverse effect on telephone performance.

RF-1 For single line equipment including wired or cordless phones, answering/fax machines, modems, etc. Uses standard modular connectors **$16.99**

RF-1/2-LINE For 2-line or multi-line, multi-station electronic key phone systems..... **$22.99**

RF-1/COILED For use when RFI enters thru coiled telephone cord between base and handset **$22.99**

RF-2 Hard-wired, provides a wide range of installations optional to add RFI rejection at a variety of physical/electrical locations in the system; inside jacks, behind wall mounts, etc..... **$10.99**

VECTRONICS®

LP-30 *(right)* **Low Pass Filter** Suppress TV interference from HF transmitters. Use between transmitter and antenna or tuner. Up to –70dB attenuation of harmonics falling in TV bands. For 52Ω, up to 30MHz and 1500W RF continuous power. **$69.99**

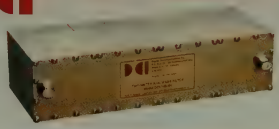
LP-2500 Rated for 2.5KW continuous.. **$129.99**

HPF-1 *(left)* **High Pass Filter** Install at TV antenna terminals. Stops interference caused by overload or harmonics from HF transmitters operating below 30MHz. High harmonic attenuation but low loss in the 52-550MHz TV passband. For 300Ω (balun and Type-F connector supplied for 75Ω)..... **$24.99**

High Pass Filters Stop TV, FM and VCR interference caused by harmonics or overload. Installs at TV or VCR antenna terminals or connector. Sharp frequency cutoff at 52MHz with 70dB attenuation below 50MHz.

HP-300T (300Ω) or **HP-75T** (75Ω).....ea. **$12.99**

DCI DIGITAL COMMUNICATIONS



BANDPASS FILTERS

Install between a 2m, 220 or 440MHz rig and antenna to reduce strength of out-of-band interfering signals while allowing wanted signals to pass through at full strength. Eliminate squeals, squawks, beeps and strange voices from a UHF or VHF radio caused by intermodulation from strong, nearby pagers, police radio, etc. Effectively reduces spurious emissions on transmit. Hear desired signals even in crowded, urban centers • Design: 2M/220MHz – 4 helical resonators; 440MHz – four 1/4-wave linear resonators; both with aperture coupling • VSWR 1.5:1 • 200W rating • Made of extruded aluminum, copper and brass • 12w"x 3"h x 5"d • 2 lb, 11oz

146-4H 144–148; Loss <1 dB; Selectivity: –57dB @ 136MHz and –43dB @ 156MHz. SO-239 silver-teflon connectors..... **$99.99**

146/444DB 144–148/438–450MHz; Selectivity: –50dB @ 136MHz, –40dB @ 156MHz, –30dB @ 425MHz, –25dB @ 465MHz. SO-239 silver-teflon connectors..... **$169.99**

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223.5-3H 222 to 225MHz; Loss 1 dB; Selectivity: –33dB @ 233 3MHz and –28dB @ 233 MHz. SO-239 silver-telfon connectors..... **$109.99**

445-10C 440-450MHz; Typical selectivity: –47dB @ 425MHz, –50dB @ 456MHz; Loss 1dB. Type-N silver-teflon-gold connectors..... **$119.99**

435-10C 430 to 440MHz..... **$119.99**

Upgrade to type-N connectors on 2m and 220MHz models – add $10 to price; Special Order

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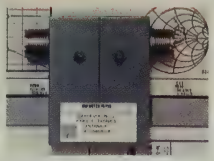

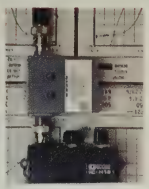

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VHFTN152-158 **Triple Cavity** Similar to the VHFDN152 except it places a second notch in the 158MHz pager band in addition to the dual notch in the 152 MHz band. 2½"h x1"d x 3"w..... **$82.99**

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UHFDN450 UHF intermod filter for base or mobile. Blocks pagers & two-way transmitters that cause 70cm intermod; transparent to 2m.. **$62.99**

UHF-12 12" Belden RG-58/U jumper cable with silver/gold/teflon PL-259's on each end..... **$9.99**

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784B **Super DSP Filter** Eliminates those hetrodynes; reduces noise and interference on SSB/CW/AM, digital modes, VHF, EME, satellite. Tunable FIR filters minimize ring, prevent data errors. Up to 60dB attenuation. Tunable Spotting Tone™ auto tunes CW filter in narrowest bandwidth. 2W audio amp with AGC. 12V DC or 110VAC with MFJ-1315. 2.5"h x 9"w x 6"d..... **$229.99**

701 **RFI Free Choke Kit** Eliminate common RFI problems by winding offending cables around an RFI suppressing toroid. Effective from 0.5-200MHz. Separates into halves for easy winding of all types of cable: computer ribbon, TV coax, power cord, telephone wire, audio-video cables. Halves mount in snap-together plastic frame. For severe RFI problems and larger cables, multiples can be stacked for more effect. (Pack of 4 toroids)..... **$14.99**

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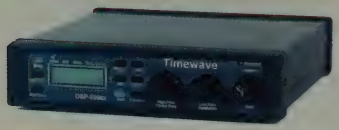

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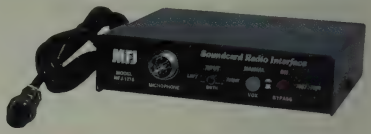

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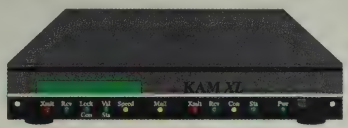

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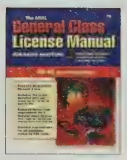

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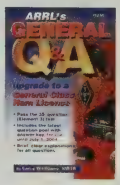

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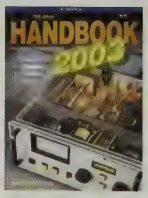

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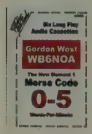

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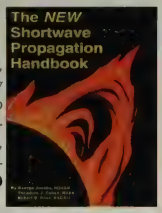

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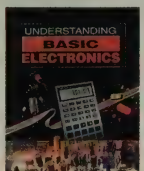

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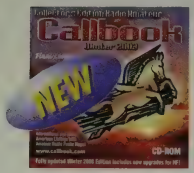

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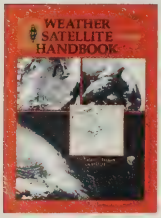

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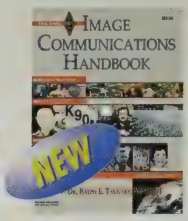

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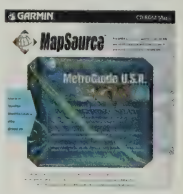

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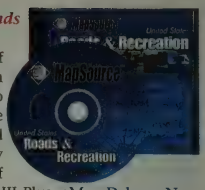

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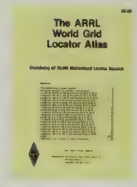

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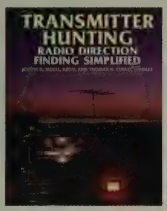

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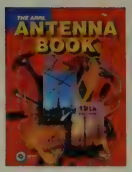

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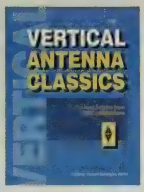

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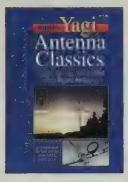

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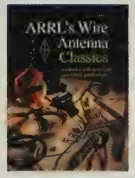

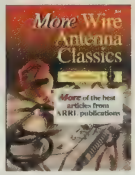

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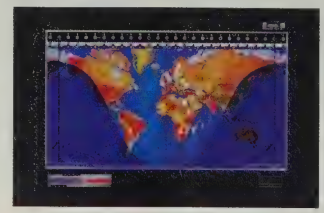

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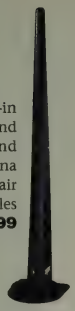
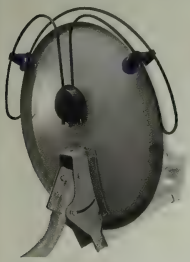


AF-9330 AM-FM Tower Antenna Built-in amplifier with gain contol improves AM and FM reception. Works with tuners and receivers with 75Ω or 300Ω FM antenna inputs. The AM connection consists of a pair of wires with U-clips. Useful 30-40 miles from the broadcast transmitter **$24.99**

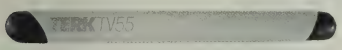
AM-1000 External AM Antenna A passive, adjustable 530-1600kHz AM antenna that improves reception over built-in loops. It is used unattached, next to the radio. Position for best reception, then rotate the tuning dial located at the center of the antenna to match the AM frequency tuned in on the radio. For best performance, it may be connected directly to an external AM antenna input..... **$49.99**

PI-B Powered AM/FM Stereo Antenna Improves FM (88-108 MHz) performance by eliminating multipath interference and distortion. Built-in low noise amplifier with gain, adjustable from -20 to +42dB, boosts weak signals. Great AM (500-1700kHz) reception with 15dB of amplification. Omnidirectional pickup pattern. Works into 75Ω input, adaptable to 300Ω input with included matching transformer..... **$49.99**



TV ANTENNAS

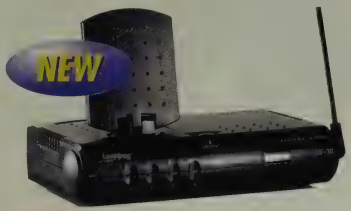
TV-42 Amplified Clip-On Antenna Attaches quickly to any 18" satellite dish and adds reception of all local VHF/UHF channels. Covers channels 2-83 and FM broadcast. Built-in internal 10dB gain amplifier to minimize signal loss, allowing distribution to multiple TV's. For Dual-LNB dishes, it has two built-in diplexers, providing more than one TV with DSS and VHF/UHF signals. Powered thru the cable by a DSS receiver. Durable, powder-coated element and weather-proof amplifier housing. 10.25"h x 21.25"w x 3.5"d **$59.99**



TV-55 Amplified Out/Indoor TV Antenna Uses a helical, coiled broadband single element engineered for clear, powerful reception of HDTV broadcasts. Receives both UHF and VHF frequencies from 54-806MHz. Built-in ultra-low noise 10dB amplifier can be switched in or out for best reception. Mounts in or outdoors. Includes a 12V adapter and mounting hardware. 46"w x 3.5"h x 2.25"d..... **$89.99**

TV, A/V ACCESSORIES

MOD-41 A/V Selector and Modulator Select and view multiple video sources. Allows video components such as DVD players, video game systems, VCR's and camcorders to be viewed on TV's that are not equipped with A/V jacks. Converts up to four A/V source inputs to VHF for viewing on any TV using channel 3 or 4. Switchable between video sources and cable or antenna. Separate VHF antenna/cable input..... **$39.99**



LF-30S Leapfrog WaveMaster 30 Transmitter/Receiver System An easy-to-use, cost effective alternative to purchasing multiple A/V components. Allows remote control use of A/V signals from one source, such as a TV with satellite or DVD player, to another within your home. Transmits a 2.4GHz band and penetrates walls, doors, ceilings and floors. Built-in IR extender enables use of existing or universal remote to control the system. Built-in modulator ensures connection to old and new TV's. 1.5"h x 7"w x 4.8"d **$99.99**

LF-20 Leapfrog Wavemaster 20 System Complete transmitter/receiver system that transmits picture and sound from satellite TV, cable, VCR and DVD connections to other TV's to anywhere in the home without wires. Advanced 2.4GHz delivers clearest picture and sound up to 100' away. It features both standard RF connectors and coaxial (RCA) jacks, for connection to any type of TV, as well as audio or A/V components. A/V cables and AC wall adapters included. 3.625"w x 1.625"h x 5.25"d ea..... **$79.99**

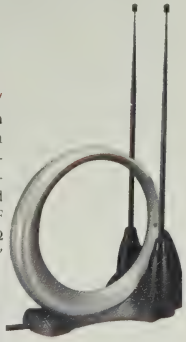
LF-IRX Leap Frog Remote Control Range Extender Increase capability of infrared remote controls. Provides the power to operate A/V components through walls and floors up to 100'. Operates on 418 MHz for wireless install. Simply plug base in near controlable unit, then plug the receiver in remote location. Cables and AC adapters included. 5"h x 2.5"w x 4"d ea..... **$39.99**

TSP-6 Surge Protector Protects satellite, antenna, cable, and phone lines from surge and spike damage while providing constant EMI/RFI noise filtering for 8 AC outlets. Automatically shuts off if protection fails. • Resettable circuit breaker • Surge and ground protection LEDs • 6' power cord with slim-line plug, 6' TV/satellite and phone cables • Rated 125V @ 15 amps..... **$29.99**

TVGuardian™

TV GUARDIAN Foul Language Filter Small computer that easily connects between your television and VCR. It continually monitors the closed-captioning embedded in the video signal and references each word against an internal directory of over 100 offensive words and phrases. If a word in the directory is detected, the audio is muted. It also removes the offensive word from the closed-captioning and replaces it with a profanity-free version. Three filter settings: Off, Tolerant Mode and Strict Mode. Three closed-caption options: Off, Display Text During Mute Only and Full-Closed Captioning. All settings and cable connections are capable of being secured under lock and key **$89.99**

RCA



ANT-1020 VHF/UHF/FM Indoor TV Antenna Contemporary design with no-scuff pad to protect cabinet tops. • 39-inch retractable and adjustable dipoles • UHF loop • Integrated 75Ω hook-up cable with "F" connector..... **$19.99**

TA-25 Eagle Aspen™ TV Distribution Amplifier Excellent for home and small MATV systems! UHF, VHF, FM • 54-890MHz • Low noise, typ. 6-7dB • 25dB gain • Switchable FM trap • Lightning protection • 6"w x 3"h x 1.75"d • 117 VAC, 4.5W **$19.99**

CELESTRON®

11015 Celestar 8 Engineered for optical performance in an affordable, full-featured Schmidt-Cassegrain scope with large enough aperture to do serious deep-sky observing. Features: 8" (203mm) aperture • 2032mm focal length • f/10 focal ratio • 6x30 finderscope • Standard 1.25" accessories including 25mm SMA eyepiece (81x), Star diagonal and visual back • Fork mount & wedgpod • 41 lbs... C/O **$999.99**

Take the best of the NexStar 5 and 8 to the next level with the 5i and 8i. Equipped with the electronic hand control, they allow manual slew across the sky in seconds or tracking of a star as the Earth rotates. The control also offers movement of the scopes at six different rates and has a "double button" feature to increase slew speed without changing rates. Put the power of the newest software and expanded 40,000 object database to work with the optional computerized hand control. Capable of becoming fully automatic GPS scopes with optional GPS accessory and computerized hand control.

11033 NexStar 5i Standard features include • 5" (127mm) diameter, 1250mm focal length, f/10 focal ratio • 60°/sec. slew • Fully enclosed HD high speed motors • Battery compartment for 8 AA's • Starbright™ coated, Schmidt-Cassegrain optics • Multi-coated, 1.25"/25mm Plössl eyepiece (50x) • StarPointer finderscope • 1.25" star diagonal • AutoGuider port • Auxiliary port for accessories • Heavy-duty base with rubber feet **$899.99**

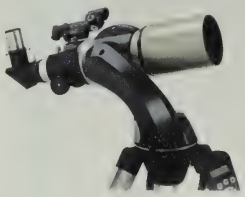
11021 NexStar 8i Same features as 5i with • 2032 mm focal length, f/10, 8" (203mm) dia. • Multi-coated, 1.25" Plössl eyepiece (81x)..... **$1199.99**

11051 G-5 Ultraportable telescope with U.S.A. made optics. Serious performance, razor sharp images. Single axis motor drive operates on four D-cells and allows automatic tracking. • 5" (127mm) aperture • 1250mm focal length • f/10 ratio • 6x30 finderscope • 25mm (50x) SMA 1.25" eyepiece • 1.25" eyepiece • 1.25" 90° diagonal • Multi-coated Schmidt-Cassegrain optics • Battery operated motor drive • Adjustable German EQ mount • 24 lbs C/O **$699.99**

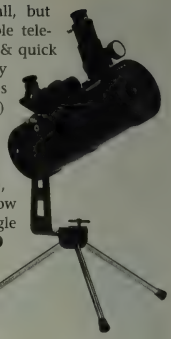
11052 NexStar 8 GPS Ultimate in "go-to" technology and astro-imaging, this 8" Schmidt-Cassegrain boasts an integrated GPS and electronic compass, combined with the NexStar™ system. As it turns on, GPS/compass system automatically points to the first alignment star. Auto guider port • 2 auxiliary ports • PC port/RS232 compatible • GPS align mode • 2000mm focal length (f/10) • 5-step multi-layer StarBright® coatings • 40mm NexStar Plössl (50x) • 9x50 finderscope • Fastar compatible • External 12V DC • AC adapter..... **$2499.99**

11053 NexStar 11 GPS A large aperture telescope with carbon fiber tube, integrated GPS and electronic compass. When turned on, the GPS/compass system automatically pinpoints exact location and points to the first alignment star. The NexStar offers a 40,000+ object database and storage for numerous, user-defined objects. It also features database filter limits for creating custom lists. Built with dual aluminum fork arms with carrying handles and a receptacle for computer go-to control. 279mm (11") dia. Schmidt-Cassegrain • 2800mm focal length • f/10 ratio • Premium 40mm (70x) 1.25" Plössl eyepiece • 9x50 finderscope • 9 slew speeds • Star diagonal • Visual back • RS232 and multiple data ports • AC adapter • Adjustable, 26-pound tripod • 65 lbs. **$2999.99**

22062 NexStar 60GT Views of the lunar landscape, phases of Venus, Mars resolved as a disc, Jupiter and its moons, Saturn with its rings plainly visible, some deep sky objects, plus terrestrial views. Comes with a fully-computerized hand control with database of over 4,000 objects. Includes three 1.25" eyepieces (35x, 70x and 175x). With a pre-assembled, adjustable tripod, the 60GT can be up and ready in a matter of minutes. A StarPointer finderscope with red LED makes centering easy. • 60mm (2.4") dia. refractor • 700 mm focal length • f/12 ratio • 1.25" star diagonal • *The Sky* Level I CD-ROM • 9.5 lbs..... **$249.99**



22082 NexStar 80GT With an 80mm aperture and 3.25° field of view, the 80GT is capable of capturing the largest deep-sky objects. 80% brighter views than 60mm. This short-tube, 400mm focal length, refractor telescope has 16x (25mm) and 40x (10mm) magnification, 1.25" SMA eyepieces. • 80 mm (3.1") dia. • f/5 ratio • "Go-to" computer hand control • StarPointer™ finderscope • 1.25" star diagonal • *The Sky* Level I CD • Adjustable aluminum tripod, accessory tray • 11 lbs..... **$349.99**



31034 Tabletop 76 Small, but powerful, this ultra portable telescope is ideal for traveling & quick set-up. The handy but sturdy table top mount provides steady viewing. • 76mm (3") aperture • 600 mm focal length • f/8 focal ratio. Standard 0.96" accessories include: 4mm SR (150x), 20mm H (30x) and 2x Barlow eyepieces • 5x24 right-angle Finderscope • 5 lbs **$99.99**

31044 Firstscope 114 High quality, telescope featuring an optical system for bright, detailed views. The highly stable equatorial mount (CG-3) has setting circles and slow motion controls on both axes providing smooth, easy tracking. Built to provide years of performance, it comes with adjustable, aluminum tripod and accessory tray. • 114mm (4.5") diameter aperture • 900mm focal length • f/8 ratio • StarPointer™ finderscope • 20mm (45x) and 10mm (90x) Kellner eyepieces • 1.25" focuser • 35" optical tube • Enhanced aluminum optical coatings • 1.5" rack and pinion focusing • 45 lbs..... **$249.99**

31058 G-8N A Newtonian reflector telescope with exceptional optics and a heavy duty mount with slow motion controls and setting circles for both axes. Heavenly sights come into view clearly and track easily. Comes complete with adjustable aluminum tripod and accessory tray. • 200mm (8") dia. • 1000 mm focal length (f/5) • 9 x 50 finderscope • Equatorial mount • Enhanced optical coatings • 20mm Plössl eyepiece • 37" optical tube length • 2"-1.25" rack and pinion focusing • 55 lbs.... C/O **$449.99**

31056 C150-HD Mounted on a rigid CG-4 equatorial mount. Counter-weight, latitude scale, setting circles and slow motion controls on axes are standard. • 150mm (6.0") aperture • 1000mm focal length • f/7 focal ratio • 1.25" accessories include: 20mm Plössl eyepiece (50x) and focuser • 6x30 finderscope • CG-4 EQ mount • Adjustable metal tripod, accessory tray • 41 lbs..... **$399.99**

CELESTRON

31142 NexStar 114GT Computer compatible Newtonian reflector with a compact design and exceptional light-gathering ability. • 114 mm (4.5") diameter • 1000mm focal length (f/9) • Starpointer™ finderscope • 25mm (40X) and 10mm (100X) SMA eyepieces • Motorized mount • Computerized hand controller with "go-to" database. Includes *GuideStar*™ software to use with your personal computer, fully assembled adjustable aluminum tripod, battery pack and *The Sky Level 1* CD-ROM ... **$439.99**

LAB GRADE MICROSCOPES

4020 Dissecting Microscope This provides an introduction to the world of microscopy. It uses a 45° inclined, 360° rotatable monocular head which can move up and down on the metal pillar for small or large item viewing. The eyepiece is a 10x-18mm with a 4x-58mm objective, giving 40x power. The all-metal unit comes with a 60mm black-and-white viewing plate and smooth rack and pinion focuser **$79.99**

4030 Educational Microscope Feature-packed and a great educational tool. It has a fully coated optical system, with H10x and H12.5x eyepieces and 35mm 4x, 10x, 40x objectives giving powers of (40x, 100x, 400x) 10x and (50x, 125x and 500x) 12.5x. This unit uses positive click stops on the turret, a five aperture diaphragm, a plano-concave 50mm mirror, and a smooth rack and pinion focuser with a safety rack stop..... **$119.99**

4050 Biological Microscope Using fully coated optics, with a mechanical tube length of 160mm, its achromatic objective promises great observing sessions. The unit has a monocular 45° inclined, 360° rotatable head, positive click stop nosepiece with three objectives, 4x, 10x, 40x, a metal 110mm x 120mm stage and a five aperture diaphragm. It uses coarse and fine focus with electrical illumination with a tungsten 20w bulb and .65 single lens condenser. Powers are 40x, 100x and 400x using the 10x eyepiece **$199.99**

SPOTTING SCOPES

50025 30mm Mini Brass Scope A unique, lightweight and versatile spotting scope with a magnification of 15x and total weight of just 4 oz! This special scope has an attractive black finish with brass accents and comes with a mini tripod. Fully coated optics, remarkable 3.5° field-of-view. For traveling, this ultra compact spotter comes with a case for secure transporting. It also makes an excellent gift for tabletop or desk display..... Closeout **$59.99**

52200 *(top)* **60mm Pro Zoom Spotting Scope** This powerful spotting scope's large 60mm aperture makes it perfect for bird watching, photography, nature study, hunting or scenic observing. Carefully crafted, multicoated optics provide excellent contrast and clarity, and the standard lens hood reduces glare. Zoom and focus controls are exceptionally smooth, convenient and easy to use. The ability to zoom from 15 to 60 power with speed and precision means you'll be able to focus on and follow interesting subjects with ease. • 24' near focus at 15 power • 15mm eye relief at 15 power • 30° field of view at 15 power **$199.99**

52211 *(bottom)* **60mm Wildlife Zoom Spotting Scope** A great all-around optic designed to perform well in a range of viewing situations. Great for bird watching, observing nature and long distance spotting. The focus and zoom controls are easy to use and well placed for fast, convenient image acquisition. It offers long eye relief of 33mm at 15 power. With fully coated lenses, it's totally reliable and an excellent performer. • Power range that zooms from 15 to 45 power • Near focus: 42' at 15 power • Field of view: 2.25' at 15 power • Mini table tripod and carrying case included • 25 oz..... **$169.99**

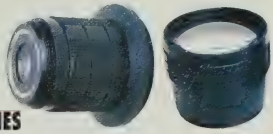
Look For This NEW & Check Out AES' Latest Additions.

Night Owl Optics NIGHT VISION

NOCC-3 Cyclops Compact™ At 16 ounces, the NOCC3 compact Night Vision monocular boasts a powerful integrated infrared illuminator in one of the lightest body styles available. With easy to operate power and IR controls, both with indicator lights, the NOCC-3 is equipped with a 42mm objective operating at a 1:1.2 aperature with 3.1x magnification for quality nocturnal viewing. • Image Tube Gain: 15,000 • 628' FOV @ 1000 yards • 575' range of view • Focusing range: 8' to infinity • 2 AA batteries • 7.2" x 2.4" x 3.2" • 16 oz **$199.99**

NODS-5 Night Owl Discovery Pro™ A full-sized night vision monocular with the highest-grade 48mm camera quality objective lens providing unsurpassed resolution for distant visibility. The NODS-5 features an integrated infrared illuminator encased in an attractive, ergonomic body. Equipped with soft-touch controls, power and IR indicators and a tripod mount. • Range of view: 650' • Magnification: 5X • 80mm focal length • 524' FOV @ 1000 yards • Focus range: 10' to infinity • Uses 2 AA batteries • 7.6" x 3.4" x 2.9" • 1.5 lbs **$299.99**

NOXG-2 Explorer G2™ Cutting edge, with a technologically advanced night vision intensifier tube. Gives superior brightness and performance in low light conditions, and up to 2,300' long range of view. Compact, 100% waterproof – floats! Equipped standard with a powerful integrated infrared illuminator. • Range of view: 2,300' • Magnification: 3.0X • Field of view: 612' @ 1000 yards • Focusing range: 8' to infinity • Uses 3V lithium battery • 6.8" x 2.3" x 3.3" • 1.3 lbs..... **$999.99**



ACCESSORIES

NOCA-42 Camera Adapter™ *(left)* Allows photography with 35mm SLR cameras. Replaces rear ocular lens. Requires opt. T-mount adapter **$49.99**

NOLD-20 Lens Doubler™ Increases the magnification on the NOCC-3 enabling close-up viewing in the dark. Fits in front of objective lens..... **$49.99**

BUSHNELL®

BINOCULARS

Powerview® Truly the "best of both worlds." Contemporary styling and design combined with legendary Bushnell quality and durability. The easy-to-hold and easy-to-use aspect of these binoculars also converge to make Bushnell Powerview binoculars an excellent value for the general and outdoor user. Powerview comes with soft rubber covering and the patented "Insta-Focus®" system. Each binocular comes with a neck strap and carrying case.

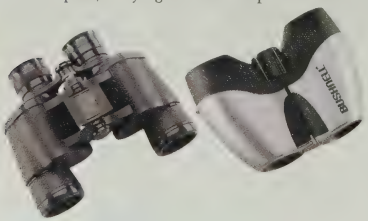
13-1226 *(left)* Compact binocular with folding roof prism. Designed in camo. Features include: 12x25 magnification • 240 ft. field of view at 1000 yds. • 2.1mm exit pupil • 9.7oz..... **$29.99**

13-0430 *(right)* **LiteVision™** • 4x30 magnification • 650 ft. field of view at 1000 yds. • 7.5mm exit pupil • 7.5oz **$13.99**

13-1250 *(right)* **InstaFocus®** • 12x50 magnification • Porro prism • 265' field of view (1000 yds.) • 4.2 mm exit pupil • Adapts to tripod • 27oz... **$59.99**

13-2514 *(left)* Compact, folding binocular • 8x21 magnification • Roof prism • 375 ft. field of view at 1000 yds. • 2.6mm exit pupil • 7oz..... **$21.99**

Falcon is feature packed and value priced. Perfect for sporting events, sightseeing, nature study, backpacking, concerts and theater. The line includes the Bushnell patented InstaFocus® focusing system, coated optics, carrying case and strap.



13-0721 *(right)* Compact binocular featuring 7x21 magnification • Porro prism • 340 ft. field of view • 3mm exit pupil • 4.7oz ..... Closeout **$29.99**

13-3410 *(left)* **InstaFocus®** • 7x35 maginifcation • Porro prism • 420' field of view (1000 yds.) • 5mm exit pupil • Adapts to tripod • 21oz..... **$29.99**

We accept I.M.P.A.C.® Government Credit Cards

MISCELLANEOUS

26-3150 NightVision Binocular (Generation 1) Great for wild-life observation, maritime navigation, security or camping. Built-in infrared illuminator for enhanced images in very low light. Powered by a single CR123A battery. • Magnification x objective lens: 3.1 x 50mm • Range: 1.5 to 400 ft. • 79 ft. field of view @ 100 yds • Includes tripod mount • 7.9" x 6.45" x 2.7", 40 oz.... **$459.99**

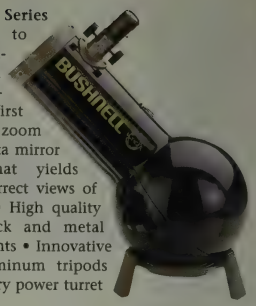
SPEEDSTER

10-1907 Speedster™ Speed Gun Multi-functional, for all kinds of sports enthusiasts! Tracks miles, or kilometers, per hour of everything from pitching speeds, tennis serves and downhill racers to cars at the race track. Measures the speed of a baseball at 6-110mph from over 90 feet away and the speed of a race car from 6-200mph at over 1300 feet away. Displays current, last and average speeds. Tracks baseball statistics for up to 8 pitchers. Features highly legible, 4-row LCD graphics display, trigger and 2-way button pad **$199.99**

TELESCOPES

Professional Series of astronomical telescopes are engineered with unparalleled structural and optical quality. These top-of-the-line models will give many long years of reliable, dependable use and a lifetime of journeys to the stars. This series is highlighted by a professional quality format: Professional format 1.25" Kellner eyepieces • Aluminum optical tube assembly • High quality glass optic objectives • Full-length, heavy-duty, variable-height aluminum tripods • Clock drive ready deluxe metal equatorial mounting • Pro format 6x30 finderscopes • 6-point finderscope adjustments • Metal accessory trays • Pro counterweight system • Fine-adjustment controls.

78-0040 90 refractor • Focal length: 1,000 • 25 mm eyepiece • 40 magni. • Multi-coated objective lens • Flexible fine-tracking cables .. C/O **$439.99**



Voyager® Series Engineered to exacting standards with exclusive features: the first astronomical zoom telescope • Penta mirror technology that yields right to left correct views of the night sky • High quality metal easy-track and metal equatorial mounts • Innovative adjustable aluminum tripods • Exclusive rotary power turret eyepieces.

78-2010 Penta mirror technology that yields right to left correct views • High quality metal easy-track and metal equatorial mounts • Exclusive rotary turret eyepieces • 100 x 4.5" reflector • Focal length: 500mm • 5 and 27mm Plossl eyepieces • Magnification: 18 and 100 • 1.25" format eyepieces • Precision rack and pinion focuser • Convenient shoulder strap • Pre-assembled cradle mount • Camera and tripod adaptability..... **$199.99**

78-9440 *(top)* 60mm refractor • Focal length: 700 • 8, 12.5mm eyepieces • Magni.: 56, 88, 168, 263, 280, 440 • Penta mirror, EasyTrack® mount • Adjustable wood tripod • Erecting lens .. C/O **$89.99**

78-9470 *(bottom)* 60mm refractor • Focal length: 750 • Zoom, 8, 15mm eyepieces • Magnifications: 50, 94, 50-150, 250, 470 • Penta mirror • Easy Track® mount • Adjust. tripod **$129.99**

78-9675 *(middle)* 4.5" reflector • Focal length: 900 • 4, 12, 20mm eyepieces • Magnifications: 45, 75, 135, 225, 675 • Clock drive equatorial mount • Adjustable aluminum tripod • 6-point finderscope mount • Fine tracking ..... Closeout **$229.99**

TELESCOPE ACCESSORIES

(See Price Guide to match access. to correct telescope model)

78-0101 1.25", 9mm Kellner eyepiece..... **$29.99**
78-0102 1.25", 25mm Kellner eyepiece... **$29.99**
78-0103 1.25" format erecting prism **$69.99**
78-0105 1.25" format 2x Barlow lens..... **$39.99**
78-0106 Clock drive (DC/battery power) **$89.99**

Secure
www.aesham.com

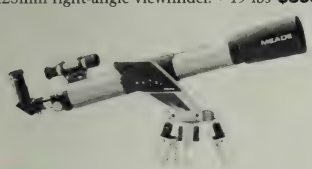
MEADE

TELESCOPES

0705-04-01 ETX-70AT 70mm Achromatic Refractor Excellent portable for beginners. Observe major planets easily. Also great for birdwatchers or naturalists. • 2 eyepieces (MA 9mm/39x and MA 25mm/ 14x) • Multi-layer coated, achromatic optical tube assembly (D=70mm, F=350mm f/5) • Internal flip-mirror system for either straight or 90° observing • Fork mount with electric slow motion controls, setting circles and locks on both axes • Electronic control panel • 9-speed, dual-axis motor drive system with Autostar™ control • Sidereal-rate tracking • Requires 6 AA's • Includes #882 tripod • 7 lbs..... **$319.99**

3514-03-04 ETX-90EC 96mm Maksutov-Cassegrain *(left)* The perfect ultraportable field telescope. • 8x21mm erect-image viewfinder • Series 4000 Super Plossl 26mm eyepiece (1.25") • Super multi-coated optical tube assembly (D=90mm, F=1250mm f/13.8) • Internal flip-mirror system for straight or 90° observing • Fork mount with electric slow-motion controls, setting circles and locks on both axes • Electronic control panel • 4-speed (8x, 32x sidereal, 0.75°/sec, 5°/sec), dual-axis motor drive system with electronic hand controller • 8 "AA" batteries required • 9.2 lbs..... **$495.99**

0515-03-01 ETX-125EC 138mm Maksutov-Cassegrain *(right)* Same as above, but with larger optical assembly (D=127mm, F=1900mm f/15) and 8x25mm right-angle viewfinder. • 19 lbs **$895.99**



20201 NGC-60 Refractor New Generation offers an improvement in design. Includes built-in AutoStar computer control system and manual slow-motion controls. • 60mm (2.4") diameter, f/11.7 ratio, 700mm focal length • Self-guided "go-to" control system offers 1400-object database • Altazimuth mount with slow-motion control (oversize bearings on both axes for greater stability and precision) • MA25mm and MA9mm 1.25" eyepieces • 5 x 24mm viewfinder • Hybrid diagonal • StarNavigator software • Adjustable sliding aluminum tripod with accessory shelf • Requires 2 AA batteries (not included)..... **$199.99**

20117 DS-2114-ATS Reflector The Meade AutoStar control system has the commanding lead in automated telescope technology. Control system includes AutoStar with 9-speed controller and "go-to" capability to any of over 1400 celestial objects. Includes internalized motors, cords, gears and battery compartment (requires 8 AA batteries). • 114mm (4.5") diameter • f/8.8 ratio • 1000mm focal length • 2" focuser • New streamlined, single-tine fork altazimuth mount provides smoother more rigid motions in altitude and azimuth • MA25 mm and MA9mm 1.25" eyepieces • 1.25" and 2" eyepiece holders • 6 x 30mm viewfinder with rubber eyecup • StarNavigator software • Quick release adjustable aluminum tripod **$399.99**

20117/20201 TELESCOPE ACCESSORIES

07137 Plössl 5mm (1.25") O.D. eyepiece. **$59.99**
07139 8mm WA (1.25") eyepiece **69.99**

BINOCULARS

CVB-1001 CaptureView Integrated Binocular & Digital Camera A versatile 8x22 compact binocular with an integrated 640x480 resolution digital camera for anyone who wants to view, and digitally capture, the action up-close. The camera captures the image in the 8-power view of the binocular. Automatic exposure and focus-free settings makes it easy to snap sports, racing events, or distant wildlife. Download images to a PC to be edited, printed, and e-mailed. Includes USB cable, carry case, strap, instructions, image capture and editing software. • 4.5" x 3.5" x 2.2", 6.4 oz • **Binocular:** 700' field of view @ 1000 yds. • 2.8mm exit pupil • **Digital Camera:** 8° field of view • f/5.6 • Range 49.2' – infinity • 8Mb memory • Uses 3 AAA batteries (not included) ..... Closeout **$79.99**

Look For This

NEW

& Check Out AES' Latest Additions.

Shakespeare®

VHF MARINE ANTENNAS

4187 Ratchet Mount *(above)* Stainless steel. 4-way ratchet design with handle for deck or bulkhead mounting. Standard 1"–14 male threads..... **$36.99**

396-1 Center-fed 1/2 Wave Coaxial Sleeve Antenna Basic 3dB antenna designed to reduce signal fading when working in rough seas. Widely used by the Coast Guard. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Deluxe chrome-plated brass ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259. Use 4187 ratchet mount **$59.99**

420 Skipper™ Center-fed 1/2 Wave Coaxial Sleeve Antenna Economical, and a good basic 3dB antenna for steady, day-to-day cruising in calm to moderate seas. Includes a polycarbonate lift/lay deck mount, leveling plate and hardware. 5MHz bandwidth, 3dB gain, 50W • White Shakespeare fiberglass • Brass and copper elements • Polycarbonate ferrule • One section • 5 ft. length, 15' RG-58 cable with PL-259..... **$59.99**

5101 Centennial™ End-fed Antenna with Matching Stub High-end features in an 8' antenna with a brass element and a smooth, high gloss, polyurethane finish that won't turn yellow in the sun. 5MHz bandwidth, 6dB gain, 50W • One section • Brass and copper elements • Chrome-plated brass ferrule with standard 1" x 14 thread • 8 ft. length • Includes 15 ft. RG-58 cable and a PL-259 coaxial connector. Use with 4187 ratchet mount..... **$49.99**

5206-C End-fed Antenna with Matching Stub Economical, lightweight and self-supporting antenna for good communications where range is not the predominant factor. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 15' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$39.99**

5202 Collinear-phased 5/8 Wave Elements A rugged, professional quality antenna featuring a heavier duty radome and tough brass and copper construction for maximum efficiency and extra range. 3MHz bandwidth, 6dB gain, 50W • White Shakespeare fiberglass • Chrome-plated brass ferrule • One section • DC grounded • 8' length, 20' RG-58 cable with PL-259. Use with 4187 ratchet mount..... **$69.99**

Used & Demo Equipment lists

Updated regularly on the web.
Check them out and order **On-line**

MFJ ENTERPRISES, INC.

HT RANGE EXTENDERS

1714 Long Ranger™ 2M Halfwave For really long range, this MFJ end-fed half-wave is hard to beat. It out performs a 5/8 wave on a handheld because it does not need a ground plane. The 1714 is shorter (40" extended), lighter, has more gain & places less stress on your antenna connector. When collapsed (10.5"), it performs like a rubber duck ... **$16.99**

1712 Dual Bander™ 2M and 440MHz New dualband handheld or separate units? One antenna fits all. It's 1/4 wave for 2m and 5/8 wave with gain for 440MHz. 7.25" collapsed, 19" extended..... **$14.99**

1710 Pocket Linear™ 3/8 Wave, 2M Carry in your pocket like a ballpoint pen. When using your rubber duck, on the fringe and noisy, put on the Pocket Linear, extend to 24.5" and carry on your QSO. Pocket clip. 5.25" collapsed..... **$9.99**

1622 Apartment Antenna *(top)* Operate 40–10M, 6M and 2M, up to 300W P.E.P. Tuning is accomplished by changing the tap on the highly efficient air-wound coil and adjusting the counterpoise for best SWR. Its universal mount/clamp lets you easily attach it to window frames, balconies and railings. It also works great indoors mounted to a desk, table or bookshelf. The 5.5' radiator collapses to 2.5' for easy storage and carrying. It includes 50' of coaxial cable, RF choke balun, 50' of coax, counterpoise wire and safety rope..... **$89.99**

1624 HF Mini Bugcatcher Operate 40–6M, up to 300W P.E.P. Tune by changing the tap on the efficient air-wound coil and adjusting the counterpoise for best SWR. The 5.5' whip collapses to 2.5' for storage/garage. Use trunk lip, mirror, luggage or tri-mag mount **$79.99**

1020C Indoor Active Antenna 300 kHz–30MHz; 5 bands. Telescoping (21") antenna provides good signal strength. Functions as a preselector when using an external antenna – minimizes intermod, improves selectivity, reduces noise. Uses 9V battery, 9-18V DC or 110V. 5"w x 2"h x 6"d..... **$79.99**

1024 Outdoor Active Antenna For 50kHz to 30 MHz reception. Separate RF amp module with 54" whip mounts outside, interconnect made by supplied 50' coax to control unit, containing gain control and 20dB attenuator. Select between 2 receivers & auxiliary antenna. Auxiliary in/output jacks. 12VDC or 110VAC. Control: 6"w x 2"h x 5"d, Module: 3"h x 4"w x 4"d..... **$129.99**

RUFFRIDER™ MOBILE ANTENNAS

(mounts not included)

This series features quality construction using precision machined components. Designed to battle the elements, rugged rides and highway abuse.

Dual band 144/440MHz mobiles have stacked stainless steel elements with high-Q phasing coils resulting in outstanding gain. Phased radiators flatten radiation patterns and concentrate transmit power at the horizon for maximum distance.

All models are factory tuned for SWR less than 1.5:1 and have 50Ω impedance. Each comes w/SO-239 base, but also includes a **FREE** NMO adapter.

1402 Junior 16.5" antenna fits in any garage on any vehicle. Unity gain on 2M, 3dB gain on 440 MHz. Handles 100W. No fold-over **$34.99**

1412 High Power Only 40" long but handles a full 200W. Great for high power mobile & amp. 3dB on 2M, 5.5dB on 440MHz **$49.99**

1422 High Gain 41.5" long giving you extra gain with little increase in height. Handles 150W. 3.2dB on 2M, 5.7dB on 440MHz..... **$49.99**

1432 Highest Gain Tall 62.5" brute gives you a whopping 5dB gain on 2M, 7.6dB gain on 440MHz. Handles 150W..... **$69.99**

1778 MFJ's G5RV Antenna Covers 80–10M bands and 160M operated as a Marconi with a tuner and ground connection Shorter that an 80 meter dipole – 102 ft. long. flat top with a length of twin-lead matching section. Requires 50Ω coaxial feed line. Use as an inverted vee or sloper where space is a problem. Full legal power limit. Coax cable not included **$39.99**

1910 Telescoping Fiberglass Mast *(right)* Great for portable and temporary use – traveling, camping, hotels, hamfests, field day, DX-peditions. Use to construct loops and quads. Pull out each section and twist to lock, strong fiberglass, flexes to resist breaking. Extends to 33' and collapses to 3.8' Bottom section 1.75" diameter. 3.3 lbs **$79.99**

1899T Walkabout™ Multi-band Telescopic Antenna Designed specifically for the Yaesu FT-817 multi-mode HF/VHF/UHF portable transceiver or other QRP portables. Covers all bands (including WARC bands) from 80 to 6 meters. Power rating is 25 Watts. When fully extended it is just over 5' long and is fitted with a BNC connector. Band changing is achieved by plugging a lead into the appropriate socket on the base coil, and fine tuning using the 10-section telescopic whip. The whip unscrews from the base matching coil, so, collapsed, the antenna measures only about 8 inches **$129.99**

We accept I.M.P.A.C.® Government Credit Cards

Lakeview Co., Inc.

WD4BUM HAMSTICKS® Two-Piece Monoband Mobile Antennas Hamstick 75 thru 10 meter models consist of a 47 inch long x 1/2 inch diameter fiberglass base section with the loading coil wound over its length and covered with black PVC shrink tubing. It's fitted on one end with a 3/8" X 24 brass base fitting that fits most amateur mobile mounts. A black 48 inch tempered stainless steel whip telescopes into the top of the base section and provides for frequency adjustment. The 6 meter model has a 34 inch base section and whip. Convenient frequency vs length graphs are included with the instructions.

If the antenna shows a SWR of 1.5 to 1 or better, no matching should be necessary. However, if it is, which may be especially true on 40 and 75m, you can capacitively match the base using values recommended in the instructions. If you frequently change bands you can use the **WD4BUM INDUCTI-MATCH (IM-1)** which consists of an impedance matching coil that simply installs at the base of the antenna. Using the supplied clip lead, you just tap up the coil for the best match.

Models

9106 (6M) **9110** (10M) **9112** (12M)
9115 (15M) **9117** (17M) **9120** (20M)
9130 (30 M) **9140** (40M) **9175** (75M)
All Hamsticks ..... each **$24.99**

901 Dipole Mount for 2 Hamsticks **14.99**
IM-1 Inducti-Match **17.99**
TM-1 License Plate Mount 3/8" x 24... **44.99**
TM-1 PLUS License Mount SO-239... **44.99**

It Doesn't take a DIRECT HIT!

Dangerous static charges measuring 1000s of volts can be developed from local thunderstorms, high wind driven snow or sand, so potent they can actually puncture the dielectric of coaxial cable. Solid-state transceivers and other equipment in your hamshack are very vulnerable to these high-voltage charges so you should take every precaution to protect your equipment and shack from possible serious damage and ALPHA DELTA has the answer!

Special Arc-Plugs are used in ALPHA DELTA's Coax Switches, Surge Protectors and DELTA-C Center Insulator which "bleed off" slow rising static electricity charges from the feed line, routing them harmlessly to ground. This is far more effective than DC grounded baluns or chokes. But, even as effective as these devices are, you still need to pay attention to proper grounding procedures as outlined in the ARRL Handbook and other technical publications.

Lightning Surge/EMI Protectors

UL LISTED – Certified protection for your equipment from lightning and static charges much more effective than low-cost air-gap types.

The heart of this protector is an Arc-Plug™, two electrodes hermetically sealed in a gas filled ceramic cylinder. Acting like a voltage dependent switch, the Arc-Plug™ can repeatedly carry large currents for brief periods of time. If an excessive voltage appears on the feedline line, due to lightning or static charges, the Arc-Plug™ is energized, forming a momentary arc and discharge to ground which protects your valuable equipment from damage.

After repeated zaps, the Arc-Plug™ may need replacing as indicated by an increased VSWR or reduced receive signal strength. A top mounted "O" ring sealed knurled knob allows easy access and replacement of the Arc-Plug™ without tools.

If you are running control voltages through the coax, the impedance compensated thru-line cavity design allows it to pass thru, instead of having to "wire around" as with some other *DC-blocked* designs.

Wide Frequency Range: DC thru 3 GHz, much wider than narrow band DC blocked or stub designs.

Low Insertion Loss: 0.1dB @ 1 GHz, 0.2dB @ 2 GHz, and only 0.5dB @ 3GHz, typical.

4 Models:

ATT-3G50* has Type-N females connectors, rated up to 3.0 GHz and 200 Watts **$59.99**

ATT-3G50U* has UHF female connectors, rated up to 500MHz and 200 Watts **$49.99**

**2000 Watt version available at No Extra Cost.*

Specify ATT-3G50HP or ATT-3G50UHP

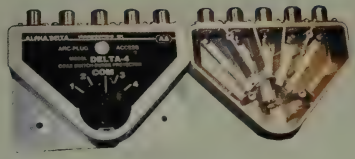
Antenna Insulator Kit with Protection

Highest quality Center and End Insulators, ideal for all types of wire antennas using either coax or balanced feed line, and up to full legal power. Made from an extremely rugged UV and RF resistant material that is virtually unbreakable. Stainless steel hardware used in the center insulator, and all internal connections are hard soldered. A built-in replaceable Arc-Plug™ provides surge protection.

DELTA-C Antenna hardware kit **$29.99**

DELTA-CIN End-insulator, only.....each **$1.99**

Lightning Surge Protected Coaxial Switches



DELTA Features:

- High Quality custom design featuring a rugged Cast Aluminum Housing.
- Constant impedance micro-strip cavities that provide very low-loss and high isolation through the UHF frequencies.
- Rated for Full Legal power.
- A solid positive detent roller bearing switch snaps positively into each position.
- An Alpha Delta Arc-Plug™ Cartridge provides continuous surge protection. If needed, it is easily replaced from the front without disassembly.
- Automatic grounding of the unused antennas to reduce antenna interaction, noise and the effects of lightning.

4 Models:

DELTA-2 2-position, with SO-239 connectors and rated for operation up to 500MHz **$49.99**

DELTA-2/N 2-position, with N-type connectors, rated for operation up to 1.3GHz..... **$64.99**

DELTA-4 4-position, with SO-239 connectors, rated for operation up to 500MHz **$79.99**

DELTA-4/N 4-position, with N-type connectors, rated for operation up to 1.3GHz **$89.99**

Lightning Surge Protected Console Coax Switches

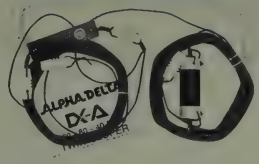
- The switch mechanism and features are the same as in the DELTA-4 models above.
- Built into a heavy 3/16 inch thick cast aluminum console weighing a hefty 2-3/4 lbs.
- The attractive, no nonsense design sits conveniently right on the operating desk and stays put.

2 Models:

DELTA-4C Console with SO-239 connectors, rated for up to 500MHz..... **$139.99**

DELTA-4CN Console with type-N connectors, rated for up to 1.3GHz **$149.99**

Limited Space Slopers



- Proven 1/4-wave sloper DX Performance
- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors, handles Full Legal Power.
- Factory assembled using insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Direct 50Ω coaxial feed, no tuner required. See website at bottom for sloper installation requirements.

DX-A A top performing 1/4-wave Twin Sloper 160, 80 and 40 meter DX antenna. Combines the DX firepower of the 1/4-wave sloper with the wide bandwidth of a 1/2-wave dipole. Installs like an Inverted-V. The length of the legs are only 67 ft. and 55 ft. long **$59.99**

DX-B A single wire high performance 1/4-wave DX Sloper with for 160, 80, 40 and 30 meters. Limited space. installation requires only 60 ft. of space for amazing DX performance with the feed-end at 35 ft. and the low end only 8 ft. above ground..... **$69.99**

Shortened Multibanders

- Alpha Delta "ISO-RES" inductors replace lossy traps and capacitors • Full Power operation
- Direct 50Ω coaxial feed, no tuner required except for extended frequency coverage.
- Factory assembled with insulated #12 copper wire, stainless hardware and 50 ft. of nylon rope.
- Uses a DELTA-C Static Protected center insulator and DELTA-CIN end insulators.
- Install Horizontally as an Inverted-V.

5 Models:

DX-CC Covers 80-40-20-15-10M, 82 ft. long...**$119.99**

DX-DD Covers 80-40M, 82 ft. long..... **$89.99**

DX-EE Covers 40-20-15-10M plus 30-17-12M using a wide range antenna tuner, 40 ft. long **$99.99**

DX-LB 160-80-40M, 100 ft. long. Typical bandwidth for 2:1 VSWR: 160M-20kHz, 80M-40kHz, 40M-300kHz. Full coverage using a wide range antenna tuner.....**$119.99**

DX-LB PLUS 160-80-40-20-15-10M. Same as DX-LB above, but adds 20-10M with parallel wires... **$149.99**

Full-Size Monoband Dipoles

- 50Ω coax feed, full power
- Install Horizontally or as an inverted V
- Factory assembled with #12 insulated copper wire, DELTA-C static protected center insulator, DELTA-CIN end insulators and 50 ft of nylon support rope.

3 Models:

DX-80 75/80 meters, 134 ft. long..... **$49.99**

DX-40 40 meters, 67 ft. long **$39.99**

DX-20 20 meters, 34 ft. long **$39.99**

OUTbacker The Performance Antenna

We Make it Simple ... But GOOD!

Most mobile antenna installations are notoriously inefficient and complex to install. Some are so big and cumbersome, they need guy ropes and special mounts to handle the wind load when under way. Some are single band only, others need a bag full of resonators for multi-band operation. Whips with automatic tuners or "screwdriver" types are nice, but even more cumbersome to install, usually requiring extra wiring and a controller.

The OUTBACKER eliminates these "big antenna" problems while providing efficient, multi-band performance in a rugged, lightweight, single whip design. Its sleek, low profile design allows use with standard 3/8-24 bases and trunk-lip mounts.

Fiberglass shaft construction, using a pre-tuned copper helical winding with clearly marked brass band taps at points along its length. A final coating of smooth epoxy resin and polyurethane, gives the OUTBACKER a toughness and durability not found in other brands, while making a really good looking mobile installation.

Changing bands is a snap; simply plug into the desired band tap and resume operating without changing whips, resonators, or re-tuning.

MODEL	BANDS	POWER	LENGTH	PRICE
OB-8	75-10M + WARC	300W P.E.P.	6 ft.	**$279.99**
OB-8HP (HIGH POWER)	75-10M + WARC	500W P.E.P.	6 ft.	**$299.99**
OB-S8*	75-10M + WARC	300W P.E.P.	6 ft.	**$299.99**
*Breaks down into two 3 ft. sections, includes a cloth carrying pouch				
OB-8TRI Same as OB-S8 except it breaks down into three 2 ft. sections, pouch included				**$329.99**
PERTH*	75-10M + WARC	150W P.E.P.	7.5 ft.	**$289.99**
*The Most Efficient model for HF Mobile				
PERTH PLUS*	75-10 + 6/2M + WARC	150W P.E.P.	6 ft.	**$299.99**
*Perfect for HF Radios with added 6 & 2 meter capability				
STEALTH PLUS*	75-10 + 6/2M + WARC	100W P.E.P.	4 ft.	**$269.99**
*Perfect for HF Radios with added 6 & 2 meter capability				
OUTREACH*	160-10M + WARC	300W P.E.P.	12 ft.	**$399.99**
OUTREACH 500*	80-6M + WARC	600W P.E.P.	12 ft.	**$439.99**
*OUTREACH and OUTREACH 500 perfect for use with the OUTPOST, below				
OB-M*	Marine/HAM*	300W P.E.P.	6 ft.	**$429.99**
*Marine: 2.182, 4.1, 6.2, 8.2, 12.4, 16.5, 22 MHz • HAM: 75, 40, 20, 17, 10M				
Joey New for the FT-817 and other QRP rigs – full description at right				**$249.99**

the OUTBACKER Joey
Portable Antenna

Added performance for the FT-817 and other QRP rigs

- Utilizes the famous OUTBACKER band tap system for the ultimate band changing convenience
- Covers complete HF/VHF range from 80 thru 2M, including 30, 17 and 12M
- Separate taps for 80 CW and 75 SSB
- Rated at 20W, all modes.
- The antenna has a 30 in. body and a 20 in. stinger when fully extended.
- Complete with a 12 ft. durable copper braid counterpoise, and a custom anti-twist 90 degree SO-239 to PL259 adapter.
- Weighs just over 1 lb **$249.99**

Change bands by changing the tap!

ALPHA DELTA OUTPOST
Tripod Mount / Ground Coupler

- A convenient method of utilizing OUTBACKERS for Base/Portable operation.
- Compact, fold-up design sets up quickly and collapses in seconds; no holes, no concrete!
- 36 x 3 in. blades on each leg unfold and lie flat providing increased ground coupling for a better impedance match and increased radiation efficiency.
- A mobile-type mount on top accepts a 3/8" x 24 antenna stud and PL-259 connector.
- A fold-over top bracket, allows the antenna to be easily removed or folded down for changing bands, or to be out of view.
- Rugged 6061-T6 aircraft aluminum members,18 lbs. Stainless steel hardware and wing nuts, comes all assembled.

$199.99

ALPHA DELTA MicroMount
Lightweight Miniature Desktop Tripod

- Ideal for the Joey!
- 8 in. tall (fixed), 12 in. footprint
- Adjustable pan head mount
- 12 ft. counterpoise
- 12 in. velco strap or securing to various objects.
- Collapses for convenient portability.

$49.99

www.alphadeltacom.com

The ***PathFINDER*** AutoTuner *by Alpha Delta* - **$399.99**

Inside View

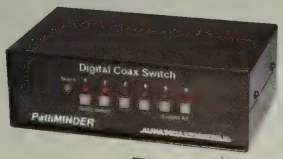
All-in-One Features for a Clean Desktop – Digital AutoTuner, Complete Digital Readout, Front Panel Switched Outputs for Wire and Coax Fed Antennas! Eliminate Separate Boxes.

- The Alpha Delta Model ***PathFINDER*** Digital AutoTuner is the **ONLY** autotuner on the market that has front panel switching outputs and built-in circuitry for Hi-Z (wire type antennas) and Low-Z (coax fed antennas) and full Digital Readout! It is a true multi-function, all-in-one instrument.
- The ***PathFINDER*** provides continuous coverage tuning from 1.8 thru 30 MHz + 6 meters. It's ideal for Amateur Radio as well as MARS, CAP and Commercial & Government uses. It runs totally under microprocessor control with an average tuning time of 3-4 seconds.
- The Digital Readout is a precision Multi-function Bar Graph and Numerical Display that simultaneously reads Power (5 to 200W), peak and average, VSWR and all tuner functions.
- Huge, 10:1 SWR tuning range on HF and 3:1 on 6 meters – *much wider than typical built-in transceiver tuners*. The ***PathFINDER*** will match coax outputs from 6 thru 800 ohms and long wire and balanced outputs from 24 thru 3200 ohms (HF). Accommodates a wide variety of antennas.
- Full 200W Power Rating on HF and 100W on 6-meters with a 50% duty cycle.
- In addition to Digital Readout, there are Audio Beep responses for VSWR and various functions for the visually impaired.
- Requires 12V DC at only 1 AMP • 7-1/2"h x 11"h x 2.5"d, 5.5 lbs. (ideal for base or portable operation)
- Interface cables available for ICOM and Alinco radios which allow simple, one button low power tune up from any mode.

The ***PathMINDER*** Coaxial Switch *by Alpha Delta* - **$149.99**

Alpha Delta's PathMINDER Digital 6-Position Coaxial Desktop Switch – the ultimate Microprocessor Controlled accessory for antenna switching, automatic station protection and operator convenience.

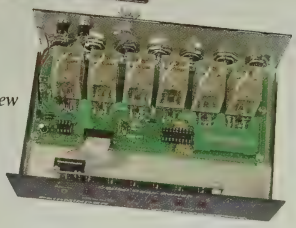
- Antenna selection is by "soft-touch" front panel switches, and switching by high power relays using a efficient, low loss circuit design. All unselected ports are grounded. Rated at 1500W, 1.8 thru 54 MHz.
- An Internal Microprocessor and RF sensors protect against accidental "HOT SWITCHING" while transmitting, which can cause equipment or relay damage. When RF (above 50 W) is present, switching will not occur and a yellow "alarm" LED activates and flashes a warning.



Three programmable operational modes:

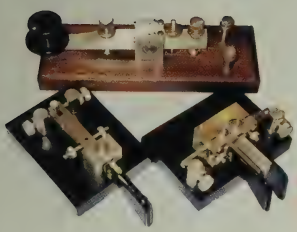
- The **First** mode is a standard coax switch with default to port 6 if power is removed or fails. All ports can also be manually grounded at any time, in any mode.
- **Second** is a "radio sensor" mode that AUTOMATICALLY grounds ports 1 thru 5, and defaults to 6, when the radio is turned off. A sensor cable is used between the ***Path*MINDER** and any radio "on" DC voltage source for the sensor modes.
- **Third** is a "radio sensor" mode, same as above, but all ports are grounded. A yellow "alarm" LED shows ground status. Red LEDs show antenna selection.
- Standard SO-239 antenna connections • Requires 12 VDC @ 250mA.

Inside View



KENT Paddles by *Alpha Delta*

Designed and produced by *R.A. Kent Engineers* – England, for *Alpha Delta*



Features rugged components made from machined, polished solid brass contained within a permanent brass housing. Uses sealed ball bearings to provide a delicate, smooth feel and free movement with minimum friction and side play. Quality silver contacts with precise gap alignments are easily and precisely adjusted with instrument knurled heads on fine pitched screws and secured with locking nuts Non-slip feet, and weighted for stability. Paddle models are mounted on heavy steel bases

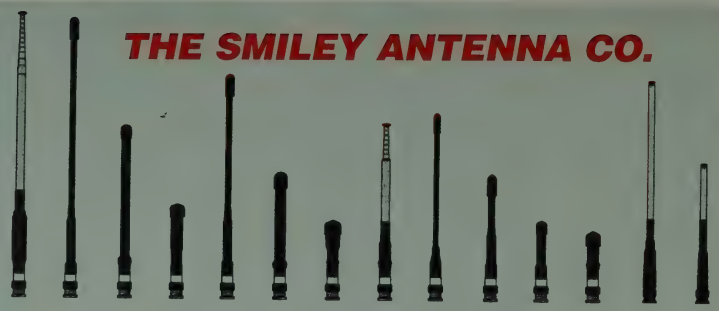
SK-1 Straight Morse Key (top) **$129.99**
SP-1 Single Paddle Morse Key (bottom/left)..... **$139.99**
TP-1 Twin Iambic Morse Paddle (bottom/right)....**$149.99**

A Beautifully Crafted Replica of the First Telegraph Hand Key made for Samuel Morse in 1844.

The "Vail Lever Correspondent" Key

VK-1 This replica key is a faithful reproduction, accurate to the type of hardware used during the mid-1800s, of the first full mechanism telegraph hand key made for Samuel F.B. Morse by Alfred Vail. Each component of the key is hand crafted and tooled in Kent's telegraphic works machine shop. Each key is individually serialized. Collectable! . **$198.99**

THE SMILEY ANTENNA CO.



HAND TUNED ANTENNAS FOR HANDHELD RADIOS

Each Smiley antenna is individually tuned to resonance at band center under normal operating conditions (no ground plane, no radials). They're manufactured from the finest heat-treated copper plated spring steel coils. Cold rubber compound is used for coil insulation with a neoprene heat-shrink coating applied for strength and endurance. All have BNC connectors.

TS Thin Stick 1/4-wave telescoping dual band antenna for 144 and 220MHz bands **$16.99**

SS-II Super Stick II *(A)* 2M, 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain fully extended. Usable fully collapsed, or one section 1/4 wave. 54" extended, 10" collapsed..... **$19.99**

SS-II/COMBO Super Stick II Combo Same as above, but includes a 2m stubby duck..... **$26.99**

5/8 SLD-2 5/8 **Slim Duck** *(B)* 2m, 5/8-wave, 7db gain, flexible base loaded ant. 12" long **$17.99**

5/8 SLD-2 COMBO 5/8 **Slim Duck Combo** As above, but includes a 2m stubby duck..... **$24.99**

RD-2 Regular Duck *(C)* For 2m. Tuned ducks show a 3db gain over other rubber ducks because they are *impedance matched* for HTs..... **$14.99**

RDS-2 Stubby Duck *(D)* Tuned, for 2m.. **$14.99**

SS-III Super Stick III 220MHz 5/8-wave, flexible base loaded telescoping antenna. 6-9db gain extended; usable collapsed, or a one-section 1/4-wave. 36" extended, 8¾" collapsed..... **$19.99**

SS-III/COMBO Super Stick III/Combo As above, but incl. a 220MHz stubby duck **$26.99**

5/8 SLD-220 5/8 **Slim Duck** *(E)* 220MHz, 7db gain, flexible base loaded 9" antenna..... **$17.99**

5/8 SLD-220 COM 5/8 **Slim Duck Combo** Same as above, but includes a 220MHz stubby duck antenna **$24.99**

RD-220 Reg. Duck *(F)* 220MHz, tuned... **$14.99**

RDS-220 Stubby Duck *(G)* As above..... **$14.99**

SS-IV Super Stick IV *(H)* 440MHz 5/8-wave, flexible telescoping ant. 6-9db gain extended; usable collapsed. 18" extended, 5¾" collapsed..... **$19.99**

SS-IV/COMBO Super Stick IV Combo Same as above, plus has 440MHz stubby duck..... **$26.99**

SL-440 Slimline *(I)* 440MHz, ¼-wv. flex. **$12.99**

5/8 SLD-440 5/8 **Slim Duck** *(J)* 440MHz, 7db gain, flexible base loaded 5" antenna..... **$17.99**

5/8 SLD-440 COM 5/8 **Slim Duck Combo** As above, plus has a 440MHz stubby..... **$24.99**

RDS-440 Stubby *(K)* 440MHz, tuned..... **$14.99**

RDMD-440 Mini Duck *(L)* As above..... **$14.99**

FLX 1/2 WAV-2M Flex-Coil *(M)* 2M, 1/2-wave, 7-9dB gain, flexible base, 35" fully extended **$25.99**

270A *(N)* Telescoping 2m/440 gain antenna. 1/4-wave (2m) 5/8-wave (440MHz). The 270A is also available with SMA **$19.99**

TAQ 1/4-wave whip antenna, specify for 2M, 220 or 440MHz .....each **$10.99**

Arrow Antenna

146/437-10 KK5YY, pictured at the left, working VE6EGN on the AO27 satellite using a Yaesu VX-1R, with 500mW output, connected to an Arrow 146/437-10. The Arrow is designed specifically to allow portable satellite operation using just an HT. Meaning, it's engineered to provide maximum gain and efficiency within a small size and weight. The boom construction is 3/4" square aluminum stock, 37.5" long with a foam grip on the back end for comfort. The three VHF and seven UHF Gamma matched elements with separate BNC connectors are aluminum arrow shafts which are strong and lightweight, and plastic tipped for safety **$73**

146/437-10BP Split boom model..... **$79**

We accept I.M.P.A.C.® Government Credit Cards

PREMIER communications

RD-78 RD-8 RD-98 RD-9 AL-800

HANDHELD ANTENNAS

RD-2 Short Duck Antenna *(not pictured)* Perfect fit for the new micro-sized handhelds such as the VX-1R, VX-5R, IC-Q7A, etc. Only 2" tall, but gives big performance. Operates on both 2M and 440MHz and also works great for out of band scanning. BNC connector **$14.99**

RD-2SMA Same as RD-2, SMA connector **$15.99**

RD-78 Extended Duck Antenna 15" tall, provides an improvement over stock, steel, spring-type antennas. Hit local repeaters solidly, access distant machines, talk extended simplex. Has 2.5dBi gain on VHF, 3.2dBi on UHF. Also includes 800/900MHz receive capability. Flexible, but doesn't droop. Gold-plated BNC connector **$19.99**

RD-8 Duck Antenna 6.5" tall and very flexible. Improves your signal over any manufacturer's stock duck. The perfect companion to any 2M/440MHz handheld, including those with 800/900MHz receive. Gold-plated BNC connector..... **$14.99**

RD-98 Thin Whip Antenna A 2M/440MHz HT antenna that is 17" long with a diameter of only 1/16th of an inch. Made of extremely strong and very flexible material – ties in a knot without damage! BNC connector **$24.99**

RD-98SMA Same as RD-98, SMA conn ... **$27.99**

RD-9 Flexible Duck Antenna An extremely flexible 7" tall rubber duck that will improve handheld performance on both 2M and 440MHz. while providing 800/900MHz receive capability. Connector is protected by a moisture shield and is molded to sit firmly on the connector, preventing excessive wear and tear. BNC connector **$18.99**

RD-9SMA Same as RD-9, SMA conn..... **$20.99**

AL-800 Telescoping Antenna Useful whenever you need extra performance for satellite work, or when on the fringes of a repeater. Telescopes to 34" or collapses to 10". Has 3.2dBi gain on VHF, 5.5dBi on UHF. For convenience and/or shorter range operation, the telescoping section unscrews and may be replaced with the included 9" rat tail. Gold-plated BNC connector..... **$29.99**

Used & Demo Equipment lists

Updated regularly on the web.
Check them out and order **On-line**

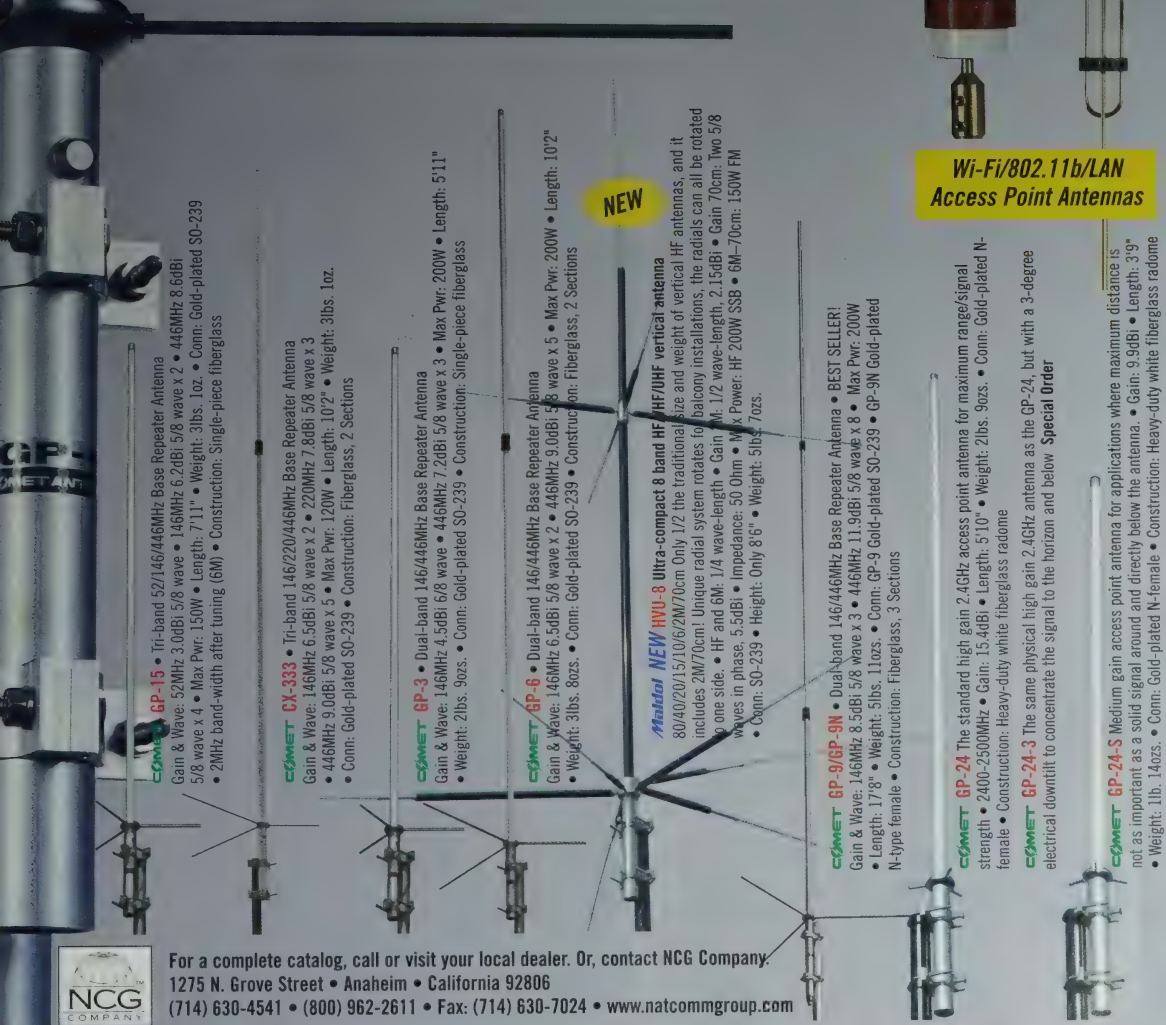
NEW from Kuranishi Instruments LTD, Japan

BR-200 Professional-Grade SWR/Antenna Analyzer

Perform SWR and impedance measurements with confidence! The BR-200 is a laboratory grade precision test instrument providing a wide-band RF signal source for analyzing antenna systems and other equipment without the need for a separate transmitter. • 1.8-170MHz • High precision meter • 500mW 50 Ohm dummy load included • Impedance measurements: 12.5 - 300 Ohm • Connector: SO-239 **Special Order**

COMET™ & Maldol

Dualband and Multiband Base Antennas



COMET GP-15 • Tri-band 52/146/446MHz Base Repeater Antenna
Gain & Wave: 52MHz 3.0dBi 5/8 wave • 146MHz 6.2dBi 5/8 wave x 2 • 446MHz 8.6dBi 5/8 wave x 4 • Max Pwr: 150W • Length: 7'11" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • 2MHz band-width after tuning (6M) • Construction: Single-piece fiberglass

COMET CX-333 • Tri-band 146/220/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 220MHz 7.8dBi 5/8 wave x 3 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 120W • Length: 10'2" • Weight: 3lbs. 1oz. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

COMET GP-3 • Dual-band 146/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Max Pwr: 200W • Length: 5'11" • Weight: 2lbs. 9ozs. • Conn: Gold-plated SO-239 • Construction: Single-piece fiberglass

COMET GP-6 • Dual-band 146/446MHz Base Repeater Antenna
Gain & Wave: 146MHz 6.5dBi 5/8 wave x 2 • 446MHz 9.0dBi 5/8 wave x 5 • Max Pwr: 200W • Length: 10'2" • Weight: 3lbs. 8ozs. • Conn: Gold-plated SO-239 • Construction: Fiberglass, 2 Sections

Maldol NEW HVU-8 Ultra-compact 8 band HF/VHF/UHF vertical antenna
80/40/20/15/10/6/2M/70cm Only 1/2 the traditional size and weight of vertical HF antennas, and it includes 2M/70cm! Unique radial system rotates for balcony installations, the radials can all be rotated to one side. • HF and 6M: 1/4 wave-length • Gain 6M: 1/2 wave-length, 2.15dBi • Gain 70cm: Two 5/8 waves in phase, 5.5dBi • Impedance: 50 Ohm • Max Power: HF 200W SSB • 6M–70cm: 150W FM • Conn: SO-239 • Height: Only 8'6" • Weight: 5lbs. 7ozs.

COMET GP-9/GP-9N • Dual-band 146/446MHz Base Repeater Antenna • BEST SELLER!
Gain & Wave: 146MHz 8.5dBi 5/8 wave x 3 • 446MHz 11.9dBi 5/8 wave x 8 • Max Pwr: 200W • Length: 17'8" • Weight: 5lbs. 11ozs. • Conn: GP-9 Gold-plated SO-239 • GP-9N Gold-plated N-type female • Construction: Fiberglass, 3 Sections

Wi-Fi/802.11b/LAN Access Point Antennas

COMET GP-24 The standard high gain 2.4GHz access point antenna for maximum range/signal strength • 2400-2500MHz • Gain: 15.4dBi • Length: 5'10" • Weight: 2lbs. 9ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome

COMET GP-24-3 The same physical high gain 2.4GHz antenna as the GP-24, but with a 3-degree electrical downtilt to concentrate the signal to the horizon and below **Special Order**

COMET GP-24-S Medium gain access point antenna for applications where maximum distance is not as important as a solid signal around and directly below the antenna. • Gain: 9.9dBi • Length: 3'9" • Weight: 1lb. 14ozs. • Conn: Gold-plated N-female • Construction: Heavy-duty white fiberglass radome

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HF/Multiband Mobile Antennas

NEW

Maldol NEW MH-511 • Tri-band 6M/2M/70cm HT Antenna
• Length: 4" • Conn: Male SMA

Maldol MH-510 • Tri-band 6M/2M/70cm HT Antenna
• Gain: 0/0/3.2dBi • Length: 20.75" • Conn: Male SMA

COMET HT-224 • Tri-band 2M/220/70cm HT Antenna
• Gain: 1.3/1.4/1.8dBi • Length: 11.5" • Conn: Male SMA

Maldol MH-610 • Tri-band 2M/220/70cm HT Antenna
• Gain: 0/1.8/3.2dBi • Length: 14" • Conn: Male SMA

NEW

Maldol NEW EX-510B/EX-510BNMO • Tri-band 6M/2M/70cm with fold-over
•Gain & Wave: 52MHz 1/4 wave 146MHz 2.15dBi 1/2 wave 446MHz 5.5dBi 5/8 wave x 2
VSWR • Length: 37" • Conn: PL-259 or NMO style • Max Power: 50W FM

NEW

• Tri-band 6M/2M/70cm with fold-over
•Gain & Wave: 52MHz 0dBi 1/4 wave • 146MHz 4.5 dBi 6/8 wave • 446MHz 7.2dBi
5/8 wave x 3 • Length: 58" • Conn: PL-259 • Max Pwr: 120W

NEW

• Quad-band 10M/6M/2M/70cm with fold-over hinge
•Gain & Wave: 10M & 6M 1/4 wave 2M 2.15dBi 1/2 wave 70cm 5.5dBi 5/8 wave x 2
• Length: 55" • Max Power: 10M 120W SSB 6M2M/70cm 100W FM • Conn: PL-259

• HF/6M/2M/70cm Mobile Antenna *80/*20/*17/40/15/10/6/2M/70cm Mobile antenna with fold-over hinge
• Gain & Wave: 2M 2.15dBi 1/2 wave • 70cm 5.5dBi 5/8 wave x 2 • VSWR: HF 1.6:1 or less, 6M-70cm 1.5:1 or less • Length: 44" (min), 78" (max) • Max Pwr: HF 120W SSB, 6M 200W SSB/100W FM, 2M/70cm 100W FM • *L-14 optional 20M coil • *L-18 optional 17M coil • *L-3.5 optional 75/80M coil • Features: • 6M/2M/ 70cm operation is constant. You CHOOSE the HF coils you want to add, up to four stock or optional. One vertical, the rest horizontal. • Easily mounts to standard trunk/door mount in minutes • Economical • Fold-over hinge built in • Select the duplexer or triplexer for your specific radio(s). CF-706A, CF-530, CFX-514N.

Fold-Over Position

NEW

• *40/20/15/10/6/2/70cm Mobile antenna with fold-over hinge
•Gain & Wave: HF 1/4 wave 2M 2.15dBi 1/2 wave 70cm 5.5dBi 5/8 wave x 2 • VSWR: HF-6M 1.6:1 or less 2M/70cm 1.5:1 or less • Length: 66" • Max Power: HF 120W SSB 6/2/70cm 150W FM
*AH-C7 optional 40M coil

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get there with COMET & Maldol Dualband Antennas

COMET BNC-24 • Dual-band 2M/70cm HT Antenna
Gain: 2.15/3.5dBi • Length: 17" • Conn: BNC
Super flexible featherweight whip

COMET SMA-24 • Dual-band 2M/70cm HT Antenna
Gain: 2.15/3.5dBi • Length: 17" • Conn: SMA
Super flexible featherweight whip

Maldol MH-209 (BNC Conn) • 2M/70cm Dual-band HT Antenna
Maldol MH-209SMA (SMA Conn)
Gain & Wave: 0 1/4 wave • Length: 3" Soft flexible rubber

NEW APEX Series
MALDOL'S Newest Mobiles!
Bright Chrome and Brushed
Aluminum Finish!

NEW Challenger Series
COMET'S Newest Mobiles!
Sleek, Super-Flexible,
Dark Chrome Finish

NEW • Dual-band 2M/70cm
Gain & Wave: 2M 1/4 wave • 70cm 5.0dBi 9/8 wave • Length: 21" • Conn: PL-259 • Max Power: 60W

NEW • Dual-band 2M/70cm w/fold-over
Gain & Wave: 2M 1/2 wave center load 3.2dBi • 70cm 5/8 wave x 2 5.7dBi • Length: 30" • Conn: PL-259 • Max Power: 60W

NEW • Dual-band 2M/70cm w/fold-over
Gain & Wave: 2M 1/2 wave center load 3 3dBi • 70cm 5/8 wave x 2 5.8dBi • Length: 38" • Conn: PL-259 • Max Power: 60W

• Dual-band 146/446MHz cellular look-a-like
Gain & Wave: 146MHz 0dBi 1/4 wave, 446MHz 2.15dBi 1/2 wave • Length: 12" • Conn: B-10 PL-259/B-10NMO NMO • Max Pwr: 50W

• Dual-band 146/446MHz
Gain & Wave: 146MHz 2.15dBi 1/4 wave, 446MHz 3.8dBi 5/8 wave center load • VSWR: 1.5:1 or less • Length: 18" • Conn: PL-259 or NMO Style • Max Pwr: 60W

NEW XBNMO • Dual-band 146/446MHz
Gain & Wave: 146MHz 2.6dBi 1/2 wave, 446MHz 4.9dBi 5/8 wave x 2 • VSWR: 1.5:1 or less • Length: 29"
• Conn: PL-259 or NMO Style • Max Pwr: 100W

/SBB-5NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.5dBi 1/2 wave • 446MHz 5.5dBi 5/8 wave x 2 • Length: 39" • Conn: SBB-5 PL-259/SBB-5NMO NMO • Max Pwr: 120W

COMET SBB-7/SBB-7NMO • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 4.5dBi 6/8 wave • 446MHz 7.2dBi 5/8 wave x 3 • Length: 53" • Conn: SBB-7 PL-259/SBB-7NMO NMO • Max Pwr: 70W

NEW

COMET NEW C757/C757NMO Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 2.15dBi 1/2 wave, 446MHz 5.5dBi 5/8 wave x 2 • VSWR: 1.5:1 or less
• Length: 38" • Conn: PL-259 or NMO Style • Max Pwr: 80W

NEW

COMET NEW CP-5M/5NMO/3/8-24
Universal mount and coax cable combos. (SO-239, NMO, 3/8-24/PL-259) Heavy-duty, adjustable RS-730 trunk/van/ SUV/truck door mount and deluxe cable assembly. 16 6" length w/18" mini RG-188A/U type coax. Max antenna 70". 3 different models

NEW

COMET NEW C767/C767NMO Challenger Series • Dual-band 146/446MHz w/fold-over
Gain & Wave: 146MHz 3.5dBi 1/2 wave center load, 446MHz 6.0dBi 5/8 wave x 2 center load • VSWR: 1.5:1 or less
• Length: 40" • Conn: PL-259 or NMO Style • Max Pwr: 80W

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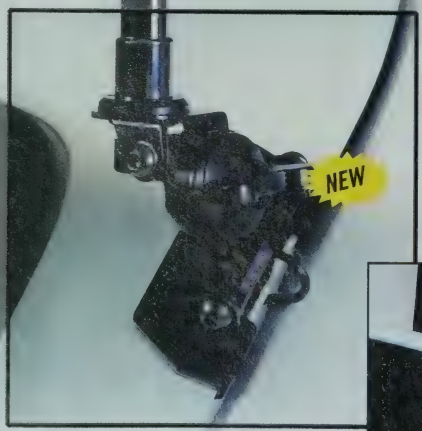
specialists in "No Holes Mobile Mounts!"

CP Series Universal Lip Mounts
Four adjustment planes, four large setscrews holds them securely in place on virtually any lip 1/4" thick or less. Use on trunk lids, van doors, truck doors, hoods etc. 16' 6" of deluxe coax cable including 18" of mini RG-188A/U style for easy entry thru the weather seal without causing wind noise, water leaks and/or wind noise.
Max antenna size: 70"/16 ozs
Max Power: HF 130W VHF 75W UHF 45W

COMET *NEW* CP-5NMO
Universal lip mount with coax, NMO and PL-259 connectors.

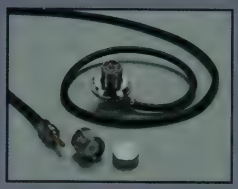
COMET *NEW* CP-5 3/8-24
Universal lip mount with coax, 3/8x24 threaded stud and PL-259 connectors.

COMET CP-5M Universal lip mount with coax, SO-239 and PL-259 connectors.

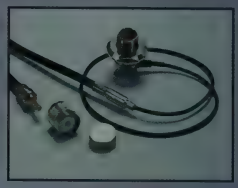


Mount: CP5M Antenna: C757

Combine the coax style and length you need with a bracket from below. (assemblies also available with N-connectors)



COMET 3D5M/3D4M Standard low loss cable assembly. Gold plated SO-239/PL-259 connectors. 17' length/13.5' length.

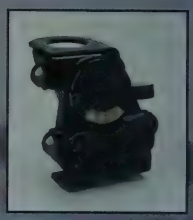


COMET CK-3M5/CK-3M Deluxe cable assembly 17' length including 17" of RG-188A/U for easy entry from a lip mount without causing water leak, wind noise or coax damage. CK-3M 9'9" total length.

Choose the bracket that best fits your antenna and vehicle. All have multiple adjustments and fit virtually any lip 1/4" thick or less. Soft rubber protects the vehicle paint.

COMET RS-720 Heavy-duty, 4 adjustment planes, up to 70" antenna.

COMET RS-720/ RS-720NMO Med-duty, 3 adjustment planes, up to 60" antenna. NMO mount version.



COMET RS-520 Light-duty, 3 adjustment planes, up to 45" antenna.

Maldol PRM-T Heavy-duty, 3 adjustment planes, up to 80" antenna.

Maldol MK-30H 12VDC motorized mount. Mounts to vertical or horizontal door lip. Up to 70"/19 oz. antenna.

Maldol EM-B80 Light-duty, 2 adjustment planes, up to 40" antenna.

COMET GR-5M **Trunk lip mount, low-profile, stainless steel.** Offset washers provide up to 17 deg vertical adjustment of antenna. 16'9" of deluxe cable included, 18" of mini RG-188A/U style coax for easy entry thru the weather seal. Gold-plated SO-239/PL-259 connectors.

The rear doors on newer trucks are the perfect place to mount antennas: • No holes to drill • Above roof line • Easy access

When mounting to a van, SUV, truck, etc., use the CP-5M or build your own system with components shown above. There are several mount sizes, coax diameters and coax lengths from which to choose.

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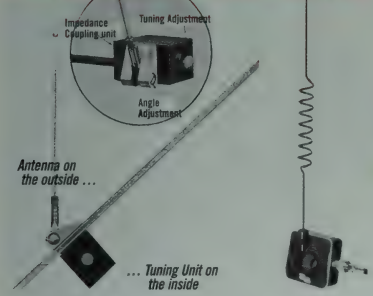
Miracle Antenna

MIRACLE WHIP All-Band, Rig-Mounted, Tun-able Whip For the FT-817, and other QRP (5W) or SWL rigs. The Miracle Whip is the only completely self-contained, all-band 57" telescoping whip antenna with integrated tuner for receiving and transmitting that mounts right on a radio's antenna connector. Continuous tune 0.6 to 500MHz rx and continuous tune 3.5 to 460MHz tx. The continuously variable auto transformer design operates effectively without any added counterpoises as the continuously variable nature permits finding a good match when there is no "standard" counterpoise attached. In effect, it uses whatever ground paths are available as a counterpoise..... **$119.99**

ANTENNA SPECIALISTS



"ON-GLASS™" MOBILE ANTENNAS

No holes to cut! The small tuning unit attaches to glass inside the vehicle and couples capacitively through the glass to the radiating element mounted on the outside. Installs with easily-removable adhesive. Includes adhesive, 15' coaxial cable with PL-259 connector • 50W • 144-174MHz (APR-151.3), 138-150MHz (APR143) • 6MHz, tunable bandwidth • Less than 1.5:1 VSWR • 50Ω nominal impedance • Electrical 1/2-wave radiator • Shunt fed, DC ground coupling unit • 33" (APR-151.3) 23" (APR143) stainless steel, black DURACOAT™ finish whip • 15' RG-58/U cable with PL-259

APR-151.3 *(left)* 2m, on-glass, 33" high... **$69.99**
APR143 *(right)* 2m 23" cell look-alike..... **$69.99**

PAR

OMNIANGLE ANTENNAS

10/6/2M, 220, 440 MHz (fixed/mobile). Complement to high-gain directional arrays, allowing all-direction local work and monitoring. Outperform halos, loops and turnstiles! Longer than halfwave dipoles. Coupled with a unique shape, yield a horizontally-polarized antenna (pattern within 0.8dB of a circle, exhibits wide bandwidth). Rated at 150W, their built-in matchbox and current balun allow feeding with 52Ω coax. Virtually eliminates detuning due to moisture. Stackable for 3–6dB omni-directional gain and lower radiation angle.

OA-28 10m, 28–30MHz **$74.99**
OA-50 6m, 49.5–54MHz **69.99**
OA-144 2m, 138–150MHz **54.99**
OA-222 222–224MHz..... **54.99**
OA-432 420–450MHz..... **54.99**
Stacking Harnesses for Two Belden 8213 and silver/gold/teflon connects, 70cm uses N-connectors.
SK-50 for OA-50 ..... **$36.99**
SK-144 for OA-144 ..... **34.99**
SK-432 for OA-432, type-N **54.99**

SM-50 Stressed Moxon 6M Antenna Occupies approximately 1/2 the footprint of traditional two-element yagis, yet has nearly identical electrical specifications. The radiator material selection results in a further reduction in size and weight over classical Moxons. Once the coupling unit is installed onto the main radiator using two #10-32 screws, assembling the rest of the antenna, including mast mounting and tuning, requires no tools. Ideal for mountain topping, roving and stealth operation. • Horizontal polarity • Forward Gain: 5.8 dBi • F/B Ratio: 17 dB • Design Z: 50Ω unbalanced • V.S.W.R. BW: 1.5MHz between 1.5:1 points • 1kW power handling • 6061-T6 aluminum, fiberglass, genuine Flex Weave wire, stainless steel • Rectangular 84 x31", 3lbs..... **$79.99**

ANTENEX

Phantom® Whipless design! They don't look like antennas. Attract less attention, less vandalism and have lower wind resistance. Less susceptible to damage by trees, garages, etc. Requires NMO mount.

TRAB-1420 VHF Covers 142-164MHz (tunable), Black radome is 3.30 in. high. Unity gain . **$59.99**

TRAB-4303 UHF Covers 430-450MHz. Black radome is 3.30" high. 3dB gain **$29.99**

BB-1443 VHF Wideband Antenna, Self Tuning Base loaded 5/8 wave. Covers 144-174 MHz, 3 dB gain, 49 in. tapered whip. Requires NMO mount. (Black) **$39.99**

CWB-4405C UHF Wideband, Self Tuning Closed coil collinear. 440-470 MHz, 5dB gain, 32-1/8" tapered whip. Requires NMO mount. (Black) **$49.99**

CWB-1443 VHF 5/8-Wave Broadband, Self Tuning 144-156MHz, 3.0 dB, 47" tapered whip. (Black).. **$49.99**

BB-1442N Broadband, 5/8-Wave No Ground Plane Base loaded, 144-174 MHz, 2.4dB, 49" tapered whip .**$39.99**

BB-4303 UHF 5/8-Wave Covers 430-450MHz, 3dB gain, 11.81" straight whip. Requires NMO mount. (Black)..... **$34.99**

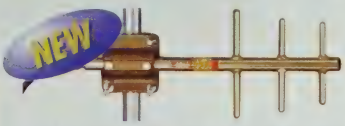
AB-FT Broadband 1/4-Wave Tunable 118-896 MHz, unity gain, NMO..... **$16.99**

AB-SCANC Scanner Antenna Closed coil collinear for 150/450/800MHz receive only. Requires NMO mount. (Black) **$29.99**

CB-144/440C Dualband VHF/UHF Closed coil collinear covers 144-148, 440-450MHz, 2/5dB, 200W. Requires NMO mount. (Black)..... **$49.99**

GPS ANTENNA

GPSU-15GBNC GPS Antenna Low profile magnetic base GPS antenna with 14 ft. RG-174/U coax and BNC connector **$99.99**



GOLD-ANODIZED, WELDED DIRECTIONAL YAGIS

Computer optimized and internally matched - wide bandwidth no tuning. End-of-boom N connector feed with an internal transmission line feeding the driven element.

Y-1363 3-Element VHF Covers 136-150MHz. 7.1 dBd. 17 dBd front-to-back ratio. Rated for 500W. Mounts on mast up to 2" diameter **$119.99**

Y-4303 3-Element UHF Covers 430-450MHz. 7.1 dBd gain, 17 dB front-to back ratio. Rated for 300W. Mounts on mast up to 1-5/8" diameter **$99.99**

AMATEUR ELECTRONIC SUPPLY
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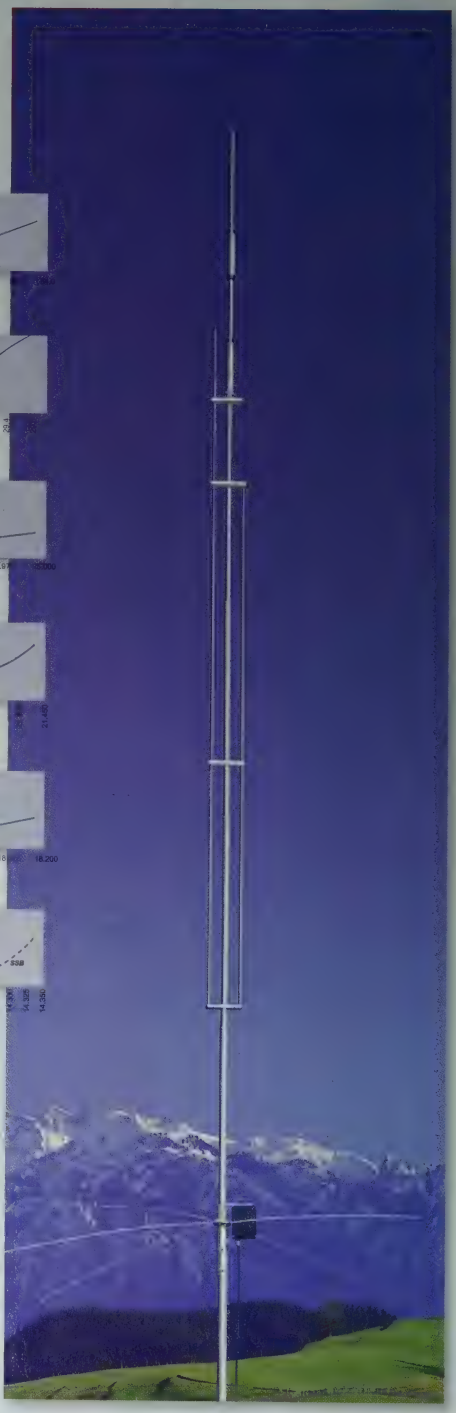
R6000 MULTIBAND VERTICAL

6 - 20 Meters

The Shape of Things to Come

The R6000 is a 6 through 20 meter, no ground radial antenna. It includes many of the features of the R8, R7 and R5 antennas. R6000 means excellent performance, easy installation and use, slim silhouette and high reliability. There are no traps used on 6, 10 and 15 meters for maximum efficiency and power handling.



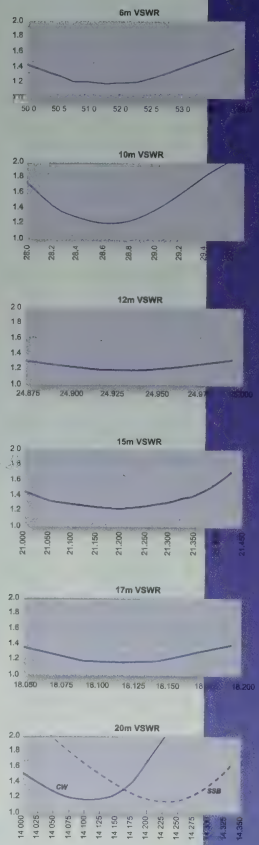
▸ EASY INSTALLATION
For typical use, tuning is not required

▸ AUTOMATIC BAND CHANGING
To any band 6 through 20 meters

▸ SLIM SILHOUETTE
Gain favor of family and neighbors with the slim, low profile of the R6000

▸ 6 METER OPERATION
Join the fun of the "Magic Band" and take advantage of the new HF/50MHz tranceivers

▸ AFFORDABLE PRICE
Cushcraft delivers the best quality and performance at a price no one else can match.



SPECIFICATIONS	R6000
Frequency, meters	6, 10, 12, 15, 17, 20
Gain, dBi	3
VSWR minimum	1.2:1 typical
2:1 bandwidth, KHz	6m >1300
	10m >1700
	12m >100
	15m >450
	17m >100
	20m 300
Power ,Watts output	1500
Radiation angle, deg.	16
Horizontal rad, deg	360
Height, ft (m)	19 (5.8)
Mast size range, in	1.5 -1.75
(cm)	(3.8-4.4)
Wind load, ft^2 (m^2)	1.5 (.14)
Weight, lb (kg)	12.5 (5.6)

The R6000 employs quarter wavelength stubs on 10 and 15 meters to replace standard trap coils. The result is lower loss and wider bandwidth. The R6000 covers all bands 6 through 15 meters at a VSWR under 2:1. On 20 meters you can select the top 300 KHz or bottom 300 KHz of the band.

The R6000 weighs only 12-1/2 pounds (5.6 kg). It is lightweight and easy to mount for portable or permanent installations. Machined aluminum clamps and UV stable insulators guarantee years of reliable service. The R6000 comes with the standard Cushcraft warranty of one year from purchase - plus the industry's leading technical support team stands behind each Cushcraft antenna.

The R6000 makes an excellent diversity antenna to complement even the most complete stations, or pack up the R6000 for a trip to the DX location of your dreams.

CUSHCRAFT CORPORATION

R8 MULTIBAND VERTICAL

HF Multiband Vertical Antenna

6, 10, 12, 15, 17, 20, 30, 40 Meter

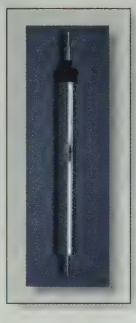
Here is Cushcraft's newest multiband HF vertical antenna. This multiband vertical design provides 8 band coverage encompassing the 6, 10, 12, 15, 17, 20, 30 and 40 meter bands.

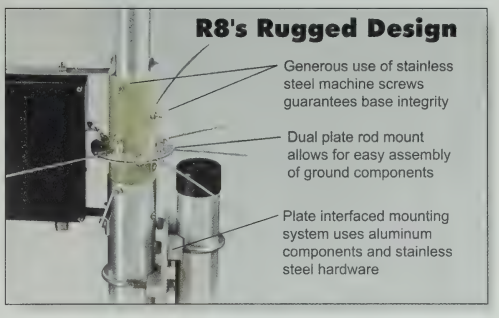
Cushcraft has achieved a major breakthrough in the development of an HF multiband vertical antenna that has been specifically designed for use with a tuner and amplifier. As a result, the antenna more accurately addresses the needs of the contemporary ham shack.

Multiband vertical antennas have always been complicated designs with components as likely to be damaged by high levels of mismatched transmit power as the rigs they are attached to. Before the use of tuners became widespread, the antenna was protected by the same safety mechanisms that protected the rig. Now, the automatic power reduction circuits of of the past have actually become a second layer of protective circuitry. Although the auto-tuner provides the ham with a more versatile device as well as protecting the rig's components, the antenna is more vulnerable than ever. With the press of a button, very high loads can be imposed on the antenna. The result to the antenna can be catastrophic failure in some instances.

The R8 is the first multiband vertical designed for the rigors of contemporary operating conditions. Although the antenna is best operated within it's 2.0:1 VSWR bandwidth, it can sustain a 3.0:1 VSWR mismatch at full power for typical operating intervals. Now radio amateurs can take full advantage of the versatility that a tuner used in conjunction with a multiband HF vertical antenna can give them. *For high wind environments, add the R8GK Guy kit–three point non-conductive guy system.*

- **RUGGED CONSTRUCTION**
- **INSTANT BAND CHANGING**
- **SLIM, LOW PROFILE SILHOUETTE**

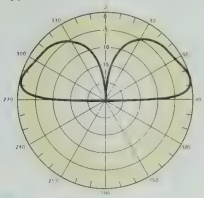


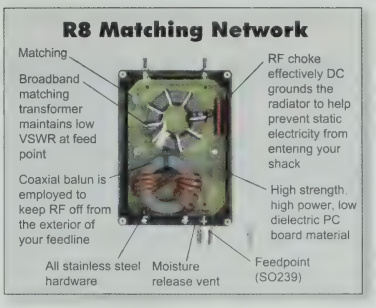


SPECIFICATIONS	R8
Frequency, meters:	6,10,12,15,17,20,30,40
Gain, dBi:	3
VSWR 2:1 bandwidth, KHz:	40m (150)
	30m (>50)
	20m (>350)
	17m (>100)
	15m (>450)
	12m (>100)
	10m (>1500)
	6m (>1500)
VSWR at resonance (typical):	1.3:1
Power Rating, Watts PEP:	1500
Vertical Radiation angle, deg.:	16
Horizontal rad, deg.:	360
Height, ft(m):	28.5 max. (8.7)
Wind survival:	80 mph
Weight, lb. (kg):	23 (10.5)
Shipping Dimensions:	3-3/4" x 5-1/4" x 84-1/2"

Even if you aren't using a tuner and amplifier, you will appreciate this antenna's rugged, heavy duty components. The R8 is easy to assemble and is built to provide years of trouble free service and satisfaction.

Typical elevation radiation pattern





INTRODUCING, MA5V/MA6V VERTICALS

6 - 20 Meters

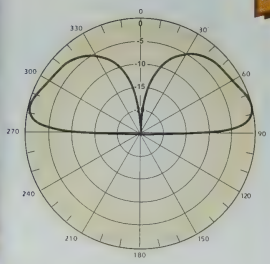
MA5V Five-Band Restricted-Space Vertical Antenna

- Light-weight rugged construction
- Rapid breakdown for storage or transport
- No exotic matching networks or tuners
- Advanced "no radial" OCFD design

Cushcraft's new MA5V delivers superb HF multi-band performance while maintaining a neighbor-friendly low profile. Perfect for roof-mounts, patios, small backyards, condos, and motor homes, this 6.5-pound bantam-weight installs quickly without the "heavy lifting" required of larger antennas. Whether you install it permanently or take it down between operating sessions, you'll appreciate special features like the MA5V's gust-absorbing fiberglass base, resin-sealed resonator coils, aluminum mast blocks, and all-stainless hardware. Best of all, the MA5V is solidly engineered—its "no-radial" OCFD design delivers low SWR and high performance without using exotic matching networks or tuners. Simply connect a radio and you're ready to work the world! The MA5V is the perfect restricted-space DX solution for 20, 17, 15, 12, and 10 meters!

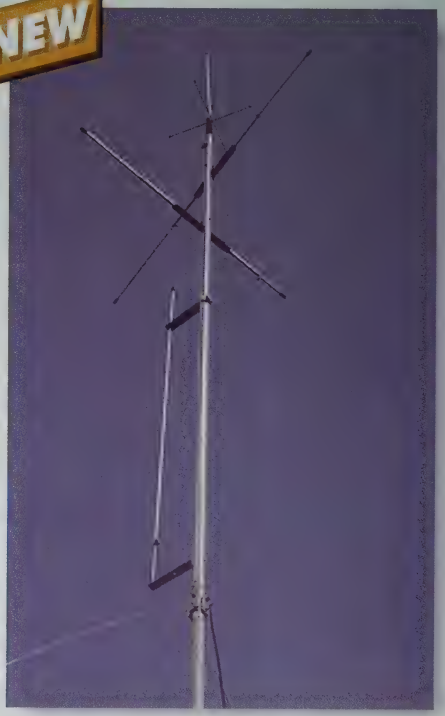
MA6V Six-Band Restricted-Space Vertical Antenna

Made for today's expanded-coverage radios, Cushcraft's MA6V provides the same great versatility and performance of the MA5V—with the addition of 6 Meters. Enjoy congestion-free FM-repeater operation and explore the world of exotic seasonal band openings on 50 MHz CW and SSB. It's a great way to add amateur radio's "magic band" to your operating repertoire!



Typical elevation radiation pattern

NEW



SPECIFICATIONS	MA5V	MA6V
Frequency, meters:	20, 17, 15, 12, 10,	20, 17, 15, 12, 10, 6
Gain, dBi:	1-2	1-2
VSWR at resonance:	1.2:1 All bands	1.2:1 All bands
Maximum Wind Surface:	.82 ft^2 (.076 m^2)	.82 ft^2 (.076 m^2)
Wind Survival, mph:	>80	>80
Maximum Power PEP:	250 W	250 W
Height, ft (m):	14.7 (4.48)	14.7 (4.48)
Mast size, in (cm):	1.25 -2.0"	(3.18-5.1)
Weight, lb (kg):	6.5 (2.95)	6.9 (3.13)
Shipping Dimensions:	3" x 3" x 80-1/2"	3" x 3" x 80-1/2"

CUSHCRAFT CORPORATION

HF MULTIBAND BEAM

10 - 20 Meters

High Front To Back Ratio
On 10/15/20m

The Director, Small Footprint–Big Signal

MA5B. Cushcraft's newest multiband HF antenna provides 5 band directivity in a package small enough to mount to a tripod. The MA5B is a design that does not sacrifice ruggedness, performance and power handling for size and ease of installation.

- *I am delighted with the performance compared with other HF antennas I have been using!*
  Bob Swannell, MOBYA

- *Thank you for making a fine quality, powerful mini beam that can fit anyones budget.*
  Phil West, KF2WL

SPECIFICATIONS	MA5B					
Frequency, MHz	10	12	15	17	20	Meters
Elements	2	1	2	1	2	per band
Gain	5.3	1.0	4.8	1.0	3.6	dBi
Front to Back Ratio	10	0	12	0	22	dB
Sidelobe Attenuation	25	25	25	25	25	dB
VSWR 2:1 Bandwidth	665	>110	255	>100	90	kHz
Longest Element	17.1ft (5.2m)					
Turning Radius	8.8ft (2.7m)					
Boom Length	7.3ft (2.2m)					
Boom Diameter	1.5in (3.8cm)					
Max. Wind Surface Area	3.22 ft^2 (.3m^2)					
Max. Power Handling	1.2 kw					
Weight	26.5 lbs. (12kg)					

- **Easy To Tune**
  No complicated gamma matches to adjust.
- **Low VSWR**
  Flat response across all 5 bands. VSWR minimum 1.2:1.
- **Single Feed Point**
  Only one coaxial feed line is necessary for all 5 bands.
- **Rugged Construction**
  Cushcraft's tried and true stainless steel mounting hardware and heavy wall aluminum tubing make for a rugged, long lasting antenna.
- **Easy To Turn**
  With a boom length of 7 feet and a longest element length of 17 feet, a lightweight TV rotor will do the trick.

BIG THUNDER TRIBANDER

- New High Efficiency Computer Optimized Design for Maximum Gain and Ultra Clean Radiating Pattern
- 100+ MPH Construction for Best Reliability and Long Life
- NEW 4L Log Cell Driven Elements for better VSWR Bandwidth
- Trapless Driven Elements and Reflectors for Reliable Power Handling
- Interleaved Element Design for Mono-Band Performance
- Add-on kits available for 40 Meters

Element Hardware

Boom-to-Mast

40 Meter Add On Kits

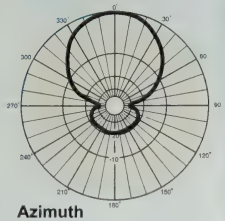
MODEL	X740
Band	7 MHz
Element Length ft. (m)	41 (12.5)
Power (W)	2KW
Weight	20lbs. (9.1 kg)

X7

The X7 Triband Yagi is geared to set new standards in both radiating performance and mechanical reliability. Cushcraft's product development team has employed the latest computer modeling technology to achieve a superior electrical design as well as elegant new mechanical hardware and assembly techniques.

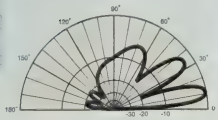
Each mechanical component was designed to 100+ MPH wind survival with a 1.25 safety factor. Traps were eliminated from the high current driven elements and reflectors using the new 4L Log Cell design, which yields virtual monoband performance and maximum power handling capability. Traps are employed only in the lower current directors for increased gain and sharper pattern. The result is a truly high performance antenna which will easily handle the legal limit.

X7



Azimuth

Typical radiation patterns.
Height: One wavelength.
Frequency: 20 M



Elevation

SPECIFICATIONS		X7
Frequency Coverage (Meters)		10, 15, 20
Total number of Elements		7
Maximum Gain (dBi)	20M	12.5 @ 14 deg
@ One Wavelength	15M	13.0 @ 12 deg
	10M	12.9 @ 14 deg
Maximum Front to Back Ratio (dB)		30
Number of Elements per Band		3
VSWR Minimum		1.1:1
VSWR 1.5:1 Bandwidth (KHz)	20M	600
	15M	750
	10M	1700
Longest Element, ft (m)		37.2 (11.33)
Turning Radius, ft (m)		20.0 (6.09)
Boom Length, ft (m)		18 (5.49)
Boom Diameter, in (cm)		2-1/2 (6.35)
Maximum Mast Diameter OD, in (cm)		2-1/2 (6.35)
Maximum Wind Survival, mph (kph)		>100 (>161)
Maximum Wind Surface Area, ft^2 (m^2)		7.9 (.73)
Windload @ 80 mph, lb (kg)		202 (92)
Maximum Power Handling (KW)		2
Weight, lb. (kg)		60 (27.2)

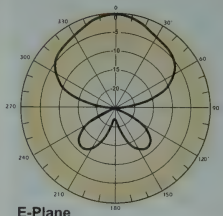
CUSHCRAFT CORPORATION

ASL670 LOG PERIODIC ANTENNA

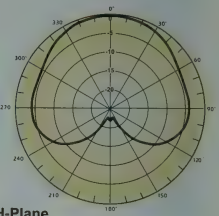
6 Meter - 70 CM

The antenna exhibits excellent gain and f/b with good VSWR bandwidth to boot. Get one today and enjoy the fun of high performance operation and multi-frequency listening all in one compact antenna.

- Rugged construction
- Wide band Log Periodic
- Easy to install
- Easy to turn



E-Plane



H-Plane

MODEL	ASL670
Frequency, MHz:	50 - 450, Continuous
No. Elements:	14
Forward Gain, dBi, dBd:	6.5, 4.5
Front to Back Ratio, dB:	20
SWR:	1.5:1 Average
Power Rating, Watts PEP:	300
3dB Beamwidth, Degrees, H-Plane:	110
E Plane:	80
Boom Length, ft (m):	6'-8" (1.9)
Boom Size, in (cm):	1.0 x 2.75 (2.54 x7)
Longest Element, ft (m):	126.6" (3.22)
Turning Radius, Horizontal Mtg. ft (m):	6'-3" (1.9)
Turning Radius, Vertical Mtg. ft (m):	3'-9" (1.15)
Mast Size Range, in (cm):	1.5"-2.5" (3.8-6.4)
Wind Load, ft^2 (m^2):	3.0 (.28)
Weight, lb (kg):	11-1/4 (5.15)

ASL670 Log Periodic

Cushcraft's new ASL670 is the ultimate multi-use antenna. Since the antenna is a log periodic, it offers continuous coverage through the 2 and 6 meter bands as well as 220 and 440 MHz. So, while being a terrific antenna for operating on those bands, it is also a great aviation and public safety band monitoring antenna. Use the antenna for contesting and mountain topping if you like. The antenna is compact and easy to assemble and disassemble with no tuning required. Yet it is rugged enough for permanent installation. The ASL670 really shines in its performance specs.

- Continuous five band coverage from 13.5 to 32 MHz
- Constant over entire frequency range
- 6.4 dBi gain, 65 degree beamwidth
- High efficiency design, antenna stays cool and VSWR steady
- 18 foot boom and 19.5 foot turning radius

MODEL	ASL2010
Frequency, MHz	13.5-32
No. Elements	8
Forward Gain, dBi	6.4
Front to Back Ratio, dB	15-20
SWR 1.2:1 Typical	
2:1 Bandwidth	18.5 MHz
Power Rating, Watts PEP	2000
3dB Beamwidth, Degrees	
E Plane	65
Boom Length, ft (m)	18 (5.48)
Boom Diameter, in (cm)	2.0 (5.08)
Longest Element, ft (m)	38 (11.58)
Element Ctr Dia., in (cm)	1.25 (3.18)
Turning Radius, ft (m)	19.25 (5.86)
Mast Size Range, in (cm)	1.5-2 (3.8-5.1)
Wind Load, ft^2 (m^2)	10.1 (.93)
Weight, lb (kg)	55 (25.5)

Skylog

The ASL2010 log periodic antenna is the most cost effective, high gain, five band antenna solution on the market today. Skylog offers continuous operation from 13.5 to 32 MHz. Antenna gain and beamwidth are constant for uniform coverage from 10 through 20 meters. The ASL2010 is rated for continuous duty at full legal power. Skylog is designed for maximum gain on a manageable 18 foot boom with only 10.1 square feet of wind surface area. All stainless steel hardware and rugged element design are only some of the many features that provide years of superior antenna performance. Skylog ASL2010 is the smart choice for multiband HF operation.

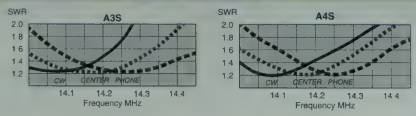
10 - 40 M WORLD RANGER MULTIBAND HF YAGIS

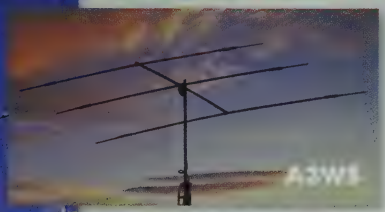
A4S Four Element Beam - 10, 15 & 20 Meters

With stainless steel hardware.
The A4S is the true, high performance tribander. Precisely tuned high-power traps, carefully selected element lengths, and proper spacing combine to make the A4S the preferred antenna for your HF work! This is the premium antenna with all the features that you want. High gain, low SWR, and wide bandwidth keep the contacts coming in. All U-bolts, clamps and hardware are stainless steel. The A4S has pinned boom sections and formed aluminum brackets to keep elements straight under all conditions. Our solid construction keeps the A4S on the tower! Add 40 meters with A744 kit.

A3S Three Element Beam - 10, 15 & 20 Meters

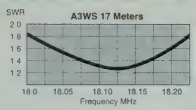
With stainless steel hardware.
The A3 World Ranger, our top selling tribander, has become the A3S with all stainless steel hardware. It's a real power-house in a small space and lets you work the pile-ups with confidence. All you need is a lightweight tower and rotator to enjoy the benefits of the A3S. It's a proven performer in DX-peditions and contests and handles full power from your linear. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware. When space is at a premium, but you want the benefits of a full-size tribander, the A3S is right for you! Add 40 meters with A743 kit.

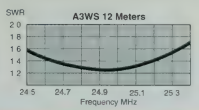




A3WS WARC Bands 3 Element - 12 & 17 Meters

Enjoy the excitement of the WARC bands with this popular beam. The A3WS gives full performance on 12 and 17 meters. With the addition of our easy-to-use A103 add on kit, it will also cover 30 meters. A3WS needs only a lightweight tower and rotator or you can mount it above an existing tribander. Construction features include pinned boom sections, heavy duty element clamps with backing plates plus all stainless steel hardware.





MODEL	A4S	A3S	A3WS
Frequency, MHz	28, 21, 14	28, 21, 14	24, 18
No. Elements	4	3	3
Forward Gain, dBi	8.9	8.0	8.0
Front to Back Ratio, dB	25	25	25
SWR 1.2:1 Typical			
2:1 Bandwidth KHz	>500	>500	300
Power Rating, Watts PEP	2000	2000	2000
3 dB Beam Width, Deg. E Plane	58	60	60
Boom Length, ft (m)	18 (5.48)	14 (4.27)	14 (4.27)
Boom Diameter, In (cm)	2 (5.10)	1.5 (3.81)	1.5 (3.81)
Longest Element, ft (m)	32 (9.75)	27.75 (8.45)	25.1 (7.66)
Element Center Dia, in (cm)	1.25 (3.18)	1.25 (3.18)	1.25 (3.18)
Turning Radius, ft (m)	18.4 (5.49)	15.5 (4.72)	14.4 (4.4)
Mast Size Range, in (cm)	1.25-2.00 (3.18-5.08)	1.25-2 (3.18-5.08)	1.25-2 (3.18-5.08)
Wind Load, ft^2 (m^2)	5.50 (0.51)	4.36 (0.47)	4.1 (0.38)
Weight, lb (kg)	37 (16.8)	27 (12.9)	22.5 (10.2)

30 & 40 Meter Add-On Kits - For A3S, A4S & A3WS

40 meters will come alive by adding one of these kits to the dipole of your A3S or A4S. The kits include high power traps with heavy wall fiberglass insulator and all hardware. A simple adjustment allows 30 meter operation. For our newest beam, the A3WS, we have a 30 meter add on kit the A103.

A743 7 MHz/10 MHz kit for A3S
A744 7 MHz/10 MHz kit for A4S
A103 10 MHz kit for A3WS

MODEL	A743/A744		A103
BAND	7 MHz (40 m)	10 MHz (30m)	10 MHz (30m)
Driven Element with Adapter kit, ft (m)	33.19 min. 35.33 max. (10.12-10.77)	27.12 min. 28.4 max. (8.27-8.66)	32.1 (9.8)
Windloading ft2 (m2)	.58 (.05)	.27 (.03)	.45 (.04)
Bandwidth, KHz	125	150	250
Power Rating, Watts	2000 PEP	2000 PEP	2000 PEP
Side Rejection, dB	20	20	20
Weight, lb (kg)	3.44 (1.56)	2.29 (1.04)	3.25 (1.47)

Rotatable Dipoles

Our World Ranger Dipoles give bi-directional patterns and rotatable convenience. You can mount them high and away from the trees for better performance than a wire dipole. These single and multi-band dipoles feature high-performance traps, heavy wall tubing, and rugged hardware for years of enjoyment.

MODEL	D40	D4	D3	D3W
Frequency, MHz	7	28,21,14,7	28,21,14	24,18,10
SWR 1.2:1 Typical				
2:1 Bandwidth, KHz	200	>350 40>125	>500	>200
Power Rating Watts PEP	2000	2000	2000	2000
Length ft (m)	42.25 (12.88)	35.8 (10.92)	25.8 (7.86)	34.0 (10.37)
Mast Size, in(cm)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)	1.5-2 (3.8-5)
Wind Load, ft2 (m2)	1.3 (.12)	1.3 (.12)	.9 (.08)	.9 (.08)
Weight, lb (kg)	12 (5)	13 (6)	9 (4)	11 (5)

CUSHCRAFT CORPORATION

MULTIBAND DIRECTIONAL YAGI

6/2 Meter,70 CM,

- **Outstanding performance thanks to Cushcraft's unmatched multiband design technology and experience.**
- **Rugged stainless steel mounting hardware is easy to install and maintain.**

A627013S 6 Meter/2Meter/70 CM

Cushcraft's newest multiband directional yagi is designed to provide hobbyists who have limited tower or mast space with directional antenna performance on three of the most popular bands. The A627013S combines 6 meters, 2 meters and 70 centimeters on one boom. Since the three antennas were designed to share a common boom, the A627013S solves the often encountered problem of degraded antenna performance due to inadequate spacing when using separates.

MODEL	A627013S		
Frequency, MHz	50-54	144-148	430-450
No. Elements	3	5	5
Forward Gain, dBi	8	10	10
Front to Back Ratio, dB	20	20	18
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>1	>4	>10
Power Rating, Watts PEP	1000	350	350
3dB Beamwidth, Degrees			
E Plane		48.5	48.5
H Plane		60	60
Boom Length, ft (m)		8.66 (2.66)	
Longest Element, in (cm)		117 (300)	
Turning Radius, ft (m)		6.16 (1.87)	
Mast Size Range, in (cm)		1.25-2 (3.2-5.1)	
Wind Load, ft^2 (m^2)		2.52 (0.23)	
Weight, lb (kg)		9.5 (4.3)	

Boom-to-Mast

Element Hardware

Big Thunder Monobander

Cushcraft's XM240 monobander utilizes rugged Big Thunder hardware that combined with high strength aluminum tubing affords the antenna outstanding wind survivability. Phillystran boom trusses are used in the XM240 design for extra boom stability. The feed system is a 50 ohm direct feed with dual driven elements. VSWR is flat across the band. A high power 1:1 balun is included. The XM240 is field-proven for reliability and performance. Excellent front to back ratio and gain makes the XM240 the right choice for DX and for stacking as well.

MODEL	XM240
Frequency, MHz	7.0 - 7.3
Number Elements	2
Forward Gain Free Space, dBi	6.0
Fwd Gain @ 1 Wavelength Ht, dBi @ 14 deg	12.5
Front to Back Ratio, dB	20-25
VSWR Typical Minimum	1.1:1
VSWR 1.5:1 Bandwidth, KHz	150
Power Rating, Watts Output	1500
3dB Beamwidth, Degrees	70
Side Lobe Attenuation, dB	>35
Boom Length, feet (m)	22 (6.7)
Boom Diameter, inches (cm)	2.5 (6.3)
Longest Element, feet (m)	43 (13.1)
Turning Radius, feet (m)	24.3 (7.4)
Max Mast Size, inches (cm)	2.5 (6.35)
Wind Surface Area, sq ft (sq m)	5.5 (.51)
Wind Load @ 80 mph, lbs (kg)	142 (64.4)
Weight, lbs (kg)	55 (25)

Some hams comment on the ARX2B:
"Since I put this antenna up I have received many compliments on the improvement of my signal." (N3LHP)

"The only antenna I ever installed that worked like it should the first time." (N7PGH)

"ARX2B is a good antenna for my use on 2 meters FM...Several on the air in my area." (N9OPL)

"ARX2B...the best antenna." (XE2CLB)

Our Ringos are Number One

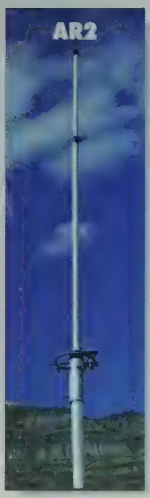
Tough performers at a good price! The Ringo family of dependable, cost-effective antennas has served more hams - from novice to veteran extra - than any other amateur antenna made. Simple, straightforward design, light weight and quick, easy installation make the durable Ringo family right for you. Ringo's top performance and low cost mean more dB per dollar - an equation anyone can appreciate.

Ringo Ranger II

Our Ringo Ranger II has more gain, less windload, and more mechanical integrity than other two meter antennas. You'll quickly appreciate the benefits of this amazing antenna! Based on the original W1BX Ringo, the Ringo Ranger II is the latest design featuring three 5/8 wave radiating elements and an adjustable 1/8 wave phasing stub. The result is a very low angle of radiation over your coverage area.

The Ringo Ranger II has built-in lightning protection, UV-stabilized insulators, heavy wall tubing, improved decoupling radials to eliminate feedline radiation, and all-weather performance.

MODEL	ARX2B	ARX220B	ARX450B
Frequency, MHz	135-160	222-225	435-450
SWR 1.2:1 Typical			
2:1 Bandwidth, MHz	>3	>5	>10
Gain, dBi	7.0	7.0	7.0
Power Rating, Watts FM	1000	500	500
Radiation Angle, Deg.	7	7	7
Horizontal Radiation Pattern, Degrees	360	360	360
Ring Diameter, in (cm)	5 (12.7)	5 (12.7)	3.5 (8.9)
Radiator Base Dia, in (cm)	.75 (1.9)	.75 (1.9)	.50 (1.2)
Height, ft, (m)	14 (4.3)	9.3 (2.8)	4.9 (1.5)
Mast Size Range, in (cm)	1.0-1.25 (2.54-3.1)	1.0-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Radial Length, in (cm)	20.5 (52.1)	13.75 (33.7)	6.75 (17.1)
Wind Load, ft^2 (m^2)	0.5 (0.05)	0.3 (0.03)	0.2 (0.02)
Weight, lb (kg)	6 (2.7)	5 (2.3)	1 (.45)



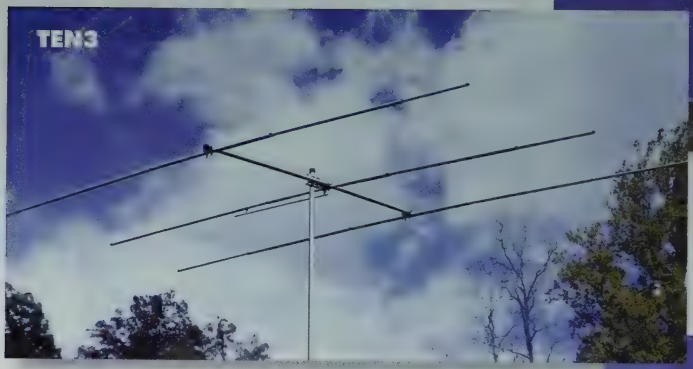
Ringo

These are the original W1BX FM Ringos. If you want a combination of compact size, wide bandwidth, a low radiation angle, these economical antennas are just for you. Since radials are not needed, you can even use our Ringos indoors. Our Ringos are 1/2 wave and include built-in lightning protection. Put up one of these easily installed antennas and start enjoying FM!

MODEL	AR2	AR6	AR10	AR450
Frequency, MHz	135-160	50-54	28-29.7	440-460
SWR 1.2:1 Typical				
2:1 Bandwidth, MHz	10	2	>1.5	20
Gain, dBi	3	3	3	3
Power Rating, Watts FM	1000	1000	1000	500
Radiation Angle, Deg.	16	16	16	16
Horizontal Radiation Pattern, Degrees	360	360	360	360
Ring Diameter, in (cm)	5 (12.7)	13 (33)	13 (33)	3.5 (8.9)
Radiator Base Dia, in(cm)	.75 (1.9)	1 (2.5)	1 (2.5)	.5 (1.3)
Height, ft, (m)	3.9 (1.2)	10.1 (3.1)	17.6 (5.36)	1.4 (.43
Mast Size Range, in (cm)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	1-1.25 (2.54-3.1)	.75-.88 (1.9-2.22)
Wind Load, ft^2 (m^2)	.21 (.02)	.37 (.03)	1.68 (.16)	.1 (.01)
Weight, lb (kg)	1.5 (.68)	2.5 (1.1)	4 (1.8)	1 (.45)

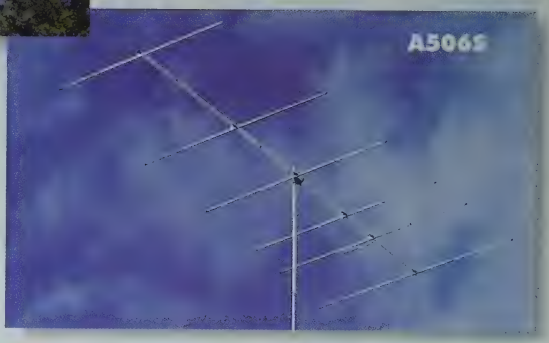
6 Meter Yagis - SSB/CW/FM

Computer-aided modeling and test range techniques were used by Cushcraft engineers to further optimize the performance of our popular 6 meter Yagis. This process means more gain and cleaner patterns with excellent front-to-back ratios. S-models have very broad bandwidth so they will not detune in bad weather. They feature stainless steel hardware for long trouble-free life. Enjoy the new popularity and exciting contacts on the 6 meter band with one of the S-series Cushcraft Yagis. The A503S, A505S and A506S may be mounted vertically for FM use.

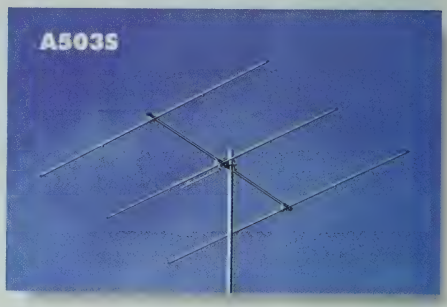


10 Meters

Looking for a lightweight, economical alternative to the 10 meter big boys? Choose the TEN3. Although it's popular with novices and technicians, this antenna is for any ham who wants more gain with a good front to back ratio on 10 meters. This antenna has an 8 foot boom (2.4m) making it easy to install on a very simple mount with only a light rotator. The matching system is our proven Reddi-Match for 50 Ohm no balun feed and SO-238 connector. Make more positive contacts with the TEN3.



MODEL	A503S	A505S	A506S	TEN3
Frequency, MHZ:	50-54	50-54	50-54	28-29.7
No. Elements:	3	5	6	3
Forward Gain, dBi:	8	10.5	11.6	8
Front to Back Ratio, dB:	20	24	26	25
SWR 1.2:1 Typical:				
2:1 Bandwidth, MHz:	>1	>1	>1	>1.5
Power Rating, Watts PEP:	1000	1000	1000	1500
3dB Beamwidth, Degrees				
E Plane:	76	56	48	64
Boom Length, ft (m):	6 (1.8)	12 (3.7)	20 (6.1)	8 (2.44)
Longest Element, in (cm):	117 (300)	123 (312)	119 (302)	18 (5.49)
Turning Radius, ft (m):	6 (1.8)	7.8 (2.37)	11.5 (3.5)	9.8 (3.0)
Mast Size Range, in (cm):	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)	1.5-2 (3.8-5.1)
Wind Load, ft2 (m2):	1.80 (0.17)	2.9 (0.273)	4.46 (.41)	2.0 (.20)
Weight, lb (kg):	7 (3.2)	11 (5.0)	18 (8.2)	9.9 (4.45)



A14820T 2 Meter Hi-Lo Cross Yagi

Here's the antenna that solves multi-mode problems! Ten vertically polarized and ten horizontally polarized elements provide 11.1 dBi gain covering 144-148 MHz. The horizontal elements handle your CW and SSB needs, while the vertical elements cover FM. Hardware is stainless steel. Separate coax feeds allow polarization changes.

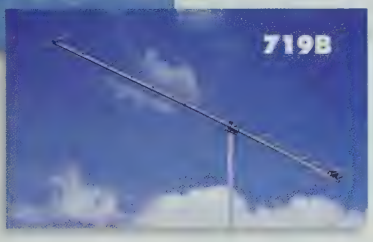
224WB
220 MHz Widebands

This 222 MHz 4 element beam is perfect for Packet, FM repeaters, or sideband/CW. It can be mounted for vertical or horizontal polarization.

MODEL	224WB	A14820T
Frequency, MHZ	222-225	144-148
No. Elements	4	10/10
Forward Gain, dBi	10.2	13
Front to Back Ratio, dB	24	24
SWR 1.2:1 Typical 2:1 Bandwidth, MHz	>5	>4
Power Rating, Watts PEP	1500	1000
3dB Beamwidth, Degrees		
E Plane	60	45
H Plane	88	50
Side Lobe Attenuation, dB E Plane	40	40
Boom Length, ft (m)	3 (.91)	11(3.4)
Electrical Wavelength	0.5	1.6
Longest Element, in (cm)	26.7 (68)	40.6 (103)
Turning Radius, ft (m)	3 (.91)	7.5 (2.3)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-2 (3.2-5.1)
Wind Load, ft^2 (m^2)	.23 (.021)	0.39(0.11)
Weight, lb (kg)	1.7 (.77)	7 (3.15)

A4496S/A44911S

Use one of these 440 MHz beams for your FM/Packet needs. Both work great for vertical or horizontal polarization.



MODEL	719B	A43011S	A4496S	A44911S
Frequency, MHz	430-450	430-440	440-450	440-450
No. Elements	19	11	6	11
Forward Gain, dBi	15.5	13.2	10.5	13.2
Front to Back Ratio, dB	25	20	18	20
SWR 1.2:1 Typical 2:1 Bandwidth MHz	20	>10	>10	>10
Power Rating, Watts PEP	2000	350	350	350
3 dB Beamwidth, Degrees				
E Plane	24	48	60	48
H Plane	19			
Side Lobe Atten., dB, E Plane	60	40	30	40
Boom Length, ft (m)	13.5 (4.1)	4.6 (1.39)	2.9 (0.89)	4.4 (1.35)
Electrical Wavelength	6			
Longest Element, in (cm)	13.75 (34.9)	14 (35)	13 (33)	13 (33)
Turning Radius, ft (m)	7.25 (2.2)	2.8 (.85)	2.9 (.89)	2.8 (.85)
Mast Size Range, in (cm)	1.25-2 (3.2-5.1)	1.25-1.5 1.25-1.5	1.25-2.0 (3.2-5.1)	1.25-1.5 1.25-1.5
Wind Load, ft^2(m^2)	1.2 (.11)	0.42 (0.04)	0.30 (0.03)	0.39 (0.04)
Weight, lb (kg)	5.6 (2.55)	4 (1.8)	3 (1.4)	4 (1.8)

719B FM, CW and SSB 15.5 dBi

Looking for an antenna to enhance performance on all modes of the 70 CM band? The 13.5 foot long 719B is the right choice. Mount it vertical for FM or horizontal for CW and Sideband. The 719B joins the 2 meter 13B2 as a classic for improved performance.

DIAMOND ANTENNAS

The Standard By Which All Others Are Judged.

Acclaimed as the technological leader in single & multiband antennas

- Wide-band Performance • Factory Adjusted–No Tuning Required • Highest Gain
- UPS Shippable • High Wind Rating • Fiberglass Radome • DC Grounded • Stainless Hardware

X50NA

X500HNA

X500HA (UHF-Conn.)
X500HNA (Type-N Conn.)
Ruggedized Base/Repeater Antenna

X50NA

The X50NA is an excellent choice where ruggedness is required in a medium–gain, dual-band, base/repeater application.

Features

- Wide frequency bandwidth
- Heavy duty fiberglass radome
- Stainless steel mounting hardware and radials
- Type–N Cable connection
- Compact size for easy mounting/installation

Specifications:

Freq.: 2m: 144–148MHz
70cm: 440-450MHz
Gain: 2m: 4.5dB; 70cm: 7.2 dB
Power: 200 watts
Wind Rating: 135 MPH (no ice)
Height: 5.6 feet

X500HNA

Diamond Antenna's best base station repeater antenna. Designed for strength and performance, the X500HNA is pretuned to achieve maximum gain in both the 2m and 70cm amateur bands.

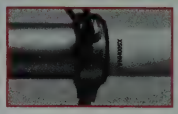
Features

- Heavy duty fiberglass radome
- Overlapping outer shells for added strength
- Stainless steel mounting hardware and radials
- Strong, waterproof joint couplings
- Type–N Cable connection
- Wide band performance

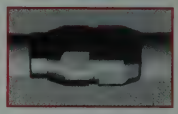
Specifications:

Freq.: 2m: 144–148MHz 70cm: 440-450MHz
Gain: 2m: 8.3dB; 70cm: 11.7 dB
Power: 200 watts
Wind Rating: 90 MPH (no ice)
Height: 17.8 feet

COAX CONNECTION AT BASE END



HEAVY DUTY BASE/ RADIAL ASSEMBLY



STRONG JOINT COUPLINGS

DIAMOND Mono-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
CP22E [1]	144	6.5	200	UHF	9.0	90
DPGH62 [1]	50	6.0	200	UHF	21.0	78
F22A	144	6.7	200	UHF	10.5	112
F23A	144	7.8	200	UHF	15.0	90
F718A [2]	440	11.5	250	N	15.0	90
G200	2.4GHz	11 dBi	–	N	4.8	135

DIAMOND Dual-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
X50A	144/440	4.5/7.2	200	UHF	5.6	135
X50NA	144/440	4.5/7.2	200	N	5.6	135
X200A	144/440	6.0/8.0	200	UHF	8.3	112
X510NA [3]	144/440	8.3/11.7	200	N	17.2	90
X510MA	144/440	8.3/11.7	200	UHF	17.2	90
X500HNA	144/440	8.3/11.7	200	N	17.8	90+
X700HNA	144/440	9.3/13.0	200	N	24.0	90
U200	440/1240	8.3/11.7	100	N	5.9	135

DIAMOND Tri-Band Base/Repeater Antennas

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. FT.	RATED WIND MPH (No. Ice)
V2000A [4,6]	52/144/440	2.1/6.2/8.4	150	UHF	8.3	110
X3200A [5]	146/222/440	6.0/7.8/8.0	100/200	UHF	10.5	112
X6000A	144/440/1240	6.5/9.0/10.0	100/60	N	10.5	112

Mast requirement: 1.4"-2.4"

DIAMOND Yagi Antennas

MODEL	BAND (MHz)	GAIN (dBi)	WATTS (PEP)	CONN.	BOOM LNTH.	ELEMENT PHASING
A502HB	50	6.3	400	UHF	2.6'	2 element
A504HB	50	10.8	400	UHF	10.7'	4 element
A144S5	144	9	100	UHF	37.5"	5 element
A430S10	432	13	100	UHF	43"	10 element
A430S15	432	14.8	100	UHF	89"	15 element

A502HB

A504HB

A144S5

NOTES:

1. Heavy duty aluminum construction.
2. F-718A: 440-450MHz., F718L: 420-430MHz.
3. X510NJ: 144-147/430-440MHz.
4. 1/4λ rated in dBi.
5. 2m: 146-148; 100 watts
6. 52-54MHz. only

BAND: 144=144-148MHz., 222=222-225MHz., 420=420-430MHz.,430=430-440MHz., 440=440 450MHz., 1240=1240-1300MHz.

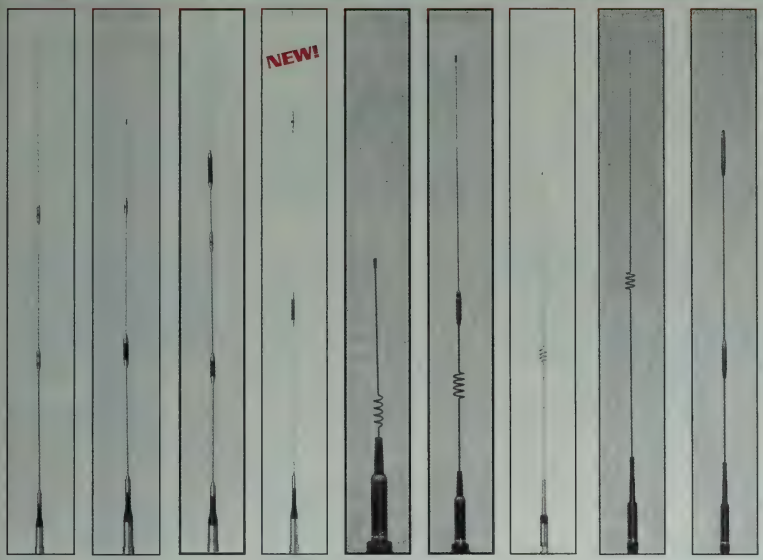
www.rfparts.com/diamond
Diamond Antenna Division of RF Parts Co. Tel: (760) 744-0900 • FAX: (760) 744-1943 • E-mail: rfp@rfparts.com

DIAMOND ANTENNA

DIAMOND'S STATE-OF-THE-ART

VHF/UHF And HF/VHF Mobile Antennas– Maximum Performance Without Compromise

You've seen the rest...now own the BEST!

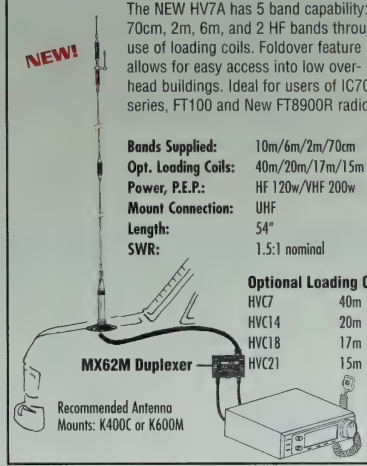


SG2000HD | SG7500A SG7500NMO | SG7900A | SGM911 | NR72BNMO | NR73BNMO | NR770HA NR770HB | NR770HNMO NR770HBNMO | CR627B CR627BNMO

HV7A Mobile Antenna System

For New HF/VHF transceivers

(Such as: IC706 series, FT100 & NEW FT8900R)



The NEW HV7A has 5 band capability: 70cm, 2m, 6m, and 2 HF bands through use of loading coils. Foldover feature allows for easy access into low overhead buildings. Ideal for users of IC706 series, FT100 and New FT8900R radios.

Bands Supplied:	10m/6m/2m/70cm
Opt. Loading Coils:	40m/20m/17m/15m
Power, P.E.P.:	HF 120w/VHF 200w
Mount Connection:	UHF
Length:	54"
SWR:	1.5:1 nominal

Optional Loading Coils

HVC7	40m
HVC14	20m
HVC18	17m
HVC21	15m

FOLD-OVER

Patented One-Touch Fold-Over Feature.
(Not available on M285, M685, MG200, MR77, MR77SMA, NR72BNMO & NR73BNMO)

SPECIAL FEATURES:

- Factory pre-tuned/no adjustment
- Highest Performance antennas
- NMO and UHF (PO) base styles
- 24 Kt gold plated connector pin
- No grounding required unless noted
- Fold-over feature on most models

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
MR77	2m/70cm	2.15/3.4	70	MAG	20	1/4λ, 1/2λ
MR77SMA	2m/70cm	2.15/3.4	70	MAG	20	1/4λ, 1/2λ
NR72BNMO*[6]	2m/70cm	2.15	100	NMO	13.8	1/4λ, 1/2λ
NR73BNMO	2m/70cm	2.15/5.3	100	NMO	33.5	1/2λ, 1-5/8λ
NR770HA[7]	2m/70cm	3.0/5.5	200	UHF	40.2	1/2λ, 2-5/8λ
NR770HNMO[8]	2m/70cm	3.0/5.5	200	NMO	38.2	1/2λ, 2-5/8λ
NR770RA	2m/70cm	3.0/5.5	200	UHF	38.6	1/2λ, 2-5/8λ
SG7000A*[6]	2m/70cm	2.15/3.8	100	UHF	18.5	1/4λ, 6/8λ
SG7500A	2m/70cm	3.5/6.0	150	UHF	40.6	1/2λ, 2-5/8λ
SG7500NMO	2m/70cm	3.5/6.0	150	NMO	41.0	1/2λ, 2-5/8λ
SG7900A*	2m/70cm	5.0/7.6	150	UHF	62.2	7/8λ, 3-5/8λ
SGM510	2m/70cm	2.15/5.5	100	UHF	37	1/2λ, 2-5/8λ

* Not recommended for Magnet Mount
6 Grounding required.
7 NR770HB same specifications but in black finish. 1/4λ rated in dBi.
8 NR770HBNMO same specifications but in black finish.
9 52-54MHz only
10 Tunable from 140-174MHz

MODEL	BAND (MHz)	GAIN (dB)	WATTS	CONN.	HT. IN.	ELEMENT PHASING
NR2C	2m	4.1	150	UHF	55.5	1/2λ+1/4λ
SG2000HD*	2m	5.2	250	UHF	62.6	1/2λ+3/8λ
CR320A*[6]	2m/1-1/4m 70cm	2.15/3.8 5.5	200/100 200	UHF	37.4	1/4λ, 1/2λ 2-5/8λ
CR627B*[6,9] CR627BNMO*[6,9]	6m/2m 70cm	2.1/4.5 7.2	120	UHF/NMO	60	1/4λ, 1/2+1/4λ 2-5/8λ
HF6FX*[6]	6m	2 dBi	250	UHF	40	1/4λ
HF50CX*[6]	6m	3.5 dBi	200	UHF	75	3/8λ
NR22L*	2m	6.5	100	UHF	96.8	2-5/8λ
NR2000NA	2m/70cm 23cm	3.15/6.3/9.7	100	N	39	1/2λ, 2-5/8λ 5-5/8λ
M285*[10]	2m	3.4	200	UHF	52.4	5/8λ
M685*[6]	6m	2.15 dBi	200	UHF	52.4	1/4λ
MG200	2.4GHz	7 dBi	-	N	23.6	3-1/2λ
SGM911*[6,9]	6m/2m/70cm	2.15/3/5.8	60	UHF	41	1/4λ, 1/2λ,2-5/8λ
NR124	23cm	8.4	100	N	25	4-5/8λ

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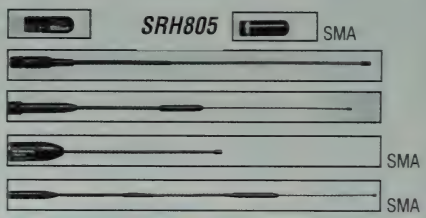
DIAMOND Antenna Accessories

High Efficiency HT & Scanner Antennas
HF Multiband Vertical Antenna
Duplexers & Triplexers
Dummy Loads & Coaxial Switches

RH Series

High quality, high gain HT antennas for mono, dual, and tri-band handheld radios. Available in both BNC and SMA connections. Increase the performance on your handheld or wideband scanner with a Diamond RH or SRH Series antenna.



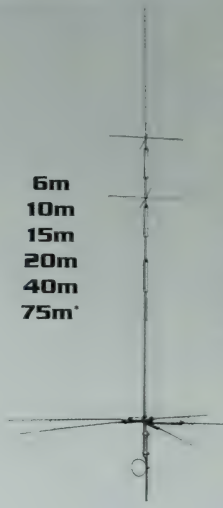
MODEL	DESCRIPTION	RELATIVE GAIN*
D130J	Wideband discone 25-1300 MHz. 200 W transmit 50-1300 MHz. No cable.	N/A
RH3	2m/70m dual band "Black Bullet" HT antenna. 1.75" BNC. 120 to 900 receive	-2 dB
RH77CA	High gain 2m/70cm dual band HT antenna. Receive range to 900 MHz. BNC.	+6 dB
RH205	2m HT antenna, telescopic, 5/8λ fully extended, 47.5"; 1/4λ retracted, 9"	+9 dB
RH519	2m/70cm slim dual-band HT antenna. Flexible. 8" BNC, 10 watts.	+3 dB
RH707	2m/70cm dual-band -tiltable whip – HT antenna. 8 1/4" BNC.	+3 dB
RH951S	High gain 2m/70cm/23cm slim tri-band HT antenna. Flexible. BNC (Wide band receive)	+6 dB
SRH77CA	High gain 2m/70cm dual band flexible HT antenna. 15" SMA, 10 watts.	+6 dB
SRH519	2m/70cm dual-band HT antenna. Flexible. 8" SMA, 10 watts.	+3 dB
SRH805	2m/70cm/23cm tri-band HT antenna. 1.75" SMA, 10 watts.	-2 dB
SRH815	2m/70cm/23cm tri-band HT antenna. Flexible. 6" SMA, 6 watts.	+3dB
SRH999	6m/2m/70cm/23cm quad-band HT antenna. Flexible. 19.5" SMA, 10 watts.	+3dB

*Rated against "rubber stick" HT antennas

CP6A HF MULTIBAND VERTICAL

The New CP6A multi-band trap-vertical antenna for HF bands, covering the 75*, 40, 20, 15, 10 and 6m amateur bands. Made from heavy-duty aluminum, the CP6A assembles easily, yields excellent performance and reliability from a compact base station antenna. Its compact size allows for many mounting options. Minimum 15 feet diameter required for mounting radials. No additional ground radials required. Mounting hardware included.

*75m requires a tuner.



Specifications

Frequency:	75*/40/20/15/10/6m	
Power:	200w PEP	
Impedance:	50Ω	
VSWR:	1.5:1 nominal	
Element:	1/4 wave trap vertical	
Radials:	Trap design, six	
Grounding:	Direct grounding. Antenna element & radials connected to mounting pipe.	
Max. Wind Rating:	80mph (no ice)	
Mast Diameter Accatance:	1.2-2.4"	
Overall Length:	15.10' (4.6m)	
Weight:	9.9lbs. (4.9kg)	
Connector:	SO-239 female UHF	
Bandwidth: (for nominal 1.5:1 VSWR without antenna tuner)	75m	20kHz
	40m	40kHz
	20m	100kHz
	15m	200kHz
	10m	500kHz
	6m	3.5MHz

MX-72D

MX-72H/N

DL30A/DL30N

CX210A/CX210N

CX310A

MODEL	DESCRIPTION
CA23RS	Lightning surge protector, DC-2500 MHz, 200W Type-N (F)
CA23RW	Lightning surge protector, DC-2500 MHz, 200W Type-N (F) Waterproof.
CX210A	Heavy duty wideband coax switch, DC-1000 MHz. 1.5 kW, SO-239
CX210N	Heavy duty wideband coax switch, DC-1500 MHz. 1.5 kW, Type N
CX310A	Heavy duty wideband coax switch, 3 position, DC–800MHz, SO–239
DL30A	Dummy load, DC-500 MHz. 15w average/100w peak. PL-259
DL30N	Dummy load, DC-500MHz. 15w average/100w peak. Type N

Duplexers/Triplexers

MODEL	MX72D	MX72H	MX72N	MX2000			MX62M	
FREQUENCY BAND (MHz)	LPF 1.6-30	140-150	HPF 400-460	LPF 1.6-60	BPF 110-170	HPF 300-950	LPF 1.6-56	HPF 76-470
PWR CW (ICAS) WATTS P.E.P.	400 1000	150 400	100 250	800	800	500	600	
THRU LOSS/dB	0.15	0.15	0.25	0.15	0.2	0.25	0.2	0.3
ISOL	60dB			60dB			50dB	
VSWR	1.2:1			1.2:1			1.2:1	
CONNECTOR COMPLEMENT	M MIX 144 430 M M	M MIX 144 430 M M	M MIX 144 430 M M	M MIX 50 144 430 M M M			M MIX HF VHF M M	
CONNECTOR	Direct	12" Cable w/Connectors		12" Cable w/Connectors			12" Cable w/Connectors	

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DIAMOND ANTENNA

DIAMOND'S Premium Antenna Mounts & Cable Assemblies

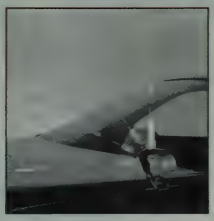
Designed for today's high performance antennas

K9000
Motorized Mount

Raise and lower your antenna with a touch of a button. Vertical adjustment 0-9°. Accepts "ground independent" antennas up to 45°. Recommended antennas: SG7500NMO, NR73BNMO, SG7500A, NR2C and NR770 series.

K9000TM Trunk/Hatchback Mount
K9000LRM Luggage Rack Mount

** Use C-Series cable assemblies.*



K600
Variable Angle Trunk Mount

Deluxe aerodynamic trunk mount. Vertical adjustment 0-9°. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

K600M SO-239 base. 16.5' coax & PL-259

K400
Heavy Duty Hatchback/ Door/Truck Lid Mount

Diamond's deluxe heavy duty mount. Two-axis adjustable. 4" wide mounting base with 4 set screws for maximum strength. Recommended for high gain VHF/UHF antennas.

K400C* SO-239 base. 6.5' coax & PL-259
K400CNMO* NMO base. 6.5' coax & PL-259
K400S† SO-239 base, 13.5' coax & SMA
K400SNMO† NMO base. 13.5' coax & SMA

** Use C110 for front radio installations*
† Includes SMA to UHF adapter.

K540
Mirror/Luggage Rack Mount

Adjustable Mirror/Luggage rack mount accepts 1/2" to 7/8" tubing. Fits most mirrors and utility racks. Recommended for antennas under 45°.

K540KM SO-239 base. 13' coax & PL-259
K540 Mount Only

K550
Luggage Rack Mount

Adjustable luggage rack mount for new mini vans. Recommended for antennas under 45°.

K550KM SO-239 base. 13' coax & PL-259
K550 Mount Only

K412
Deluxe Hatchback/Door/ Trunk Lid Mount

Two-axis adjustable mount for light weight antennas. 1.5 inch mounting width. Ideal for tight mounting options. Recommended for antennas under 45°.

K412C SO-239 base. 6.5' coax & PL-259
K412CNMO NMO base. 6.5' coax & PL-259
K412S† SO-239 base. 13.5' coax & SMA
K412SNMO† NMO base. 13.5' coax & SMA

** Use C110 for front radio installations*
† Includes SMA to UHF adapter

K601
Hide-Away Mount

Folds antenna safely into trunk. Fully adjustable. fits most vehicles. Recommended antennas: NR2C, NR73BNMO, NR770HNMO, NR770HA, NR70HBNMO, NR770HB, NR770RA, SG7500A, SG7500NMO and SGM510.

K601M SO-239 base. 6.5' coax & PL-259
K601NMO NMO Base. 6.5' coax & PL-259

** Use C110 for front radio installations.*

K702M
Magnet Mount Base

Deluxe low profile magnet mount with high holding power. Aerodynamic styling. large 6 3/8" diameter. 3/4" height. For VHF/UHF antennas up to 50" height. Includes thin mylar protective sheet to enhance grip and protect vehicle paint. Cable 13' RG58A/U & PL-259.

SPM35
Magnet Mount Base

Heavy duty 2 2/3 lb. 4" magnet mount rated 25-500 MHz. Cable 13' coax and PL-259. Recommended for antennas under 45°.

SPM-NMO
Magnet Mount Base

Similar to the SPM35, but has NMO mount.

K400-3/8 C
Special Trunk Mount for 3/8 x 24 Thread Antennas

Ideal mount for Outbacker Perth, OB Jr., and other medium weight antennas.

Note: Use C110. 10ft extension for front radio installation

Adjustment:	2 axis
Power:	350 watts RMS 500 w P.E.P.
Cable	6 1/2' RG316 Teflon coax w/PL-259

Spring recommended for stiff/heavy antennas

C-SERIES CABLE ASSEMBLIES

C101
SO-239 base. 6.5' RG316 Teflon coax & PL-259. Ideal cable assembly for trunk mount radios.

C101NMO
Same as C101 with NMO base. For Diamond's K-Series mounts.

C213
Same as C101, 13.5' length.

C213NMO
Same as C101NMO, 13.5' length.

C110
Extension for C101. 10' RG8X coax w/mini UHF Conn. Use C110 to extend cable for front radio installations.

C110BNC
10' assembly similar to above, uses RG316 Teflon coax terminating in BNC-male.

C110SMA
Similar to C110BNC, terminating in SMA male.

C211
SO-239 base, 16.5' cable assembly & PL-259. Combination of C101 & C110.

C104SMA
4' extension cable for HT's with SMA connector. For existing cable assemblies with PL-259. UHF female (SO-239) to right angle SMA male.

C105SMA
5' extension cable for C101. RG58/U cable, terminating in right angle SMA male.

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GAP: THE PERFECT ANTENNA

We at GAP realize there isn't a perfect antenna. No singular antenna will scream DX on 80 and be the best for local nets on 10. If anyone tells you there is, beware! The perfect antenna does not exist, but the right one for you may. If you want something to bust the pile on the low bands, then consider the Voyager. Just starting out in ham radio and need a great general coverage antenna, the Challenger is easy to assemble and for little effort will yield superior performance, especially on DX. Maybe you knowingly or unknowingly moved into one of those "restricted areas" where the Eagle's limited visibility, but unlimited ability is desired.

Eagle DX

Challenger DX

Voyager DX

This chart helps you select the right GAP antenna. When comparing GAPs, bandwidth is not a concern. With few exceptions, a GAP yields continuous coverage under 2:1 for the **ENTIRE BAND**.

All antennas utilize a GAP elevated asymmetric feed. A major benefit is the virtual elimination of the earth loss, so more RF radiates into the air instead of the ground. This feed is why a GAP requires **NO RADIALS**. Just as elevating a GAP offers no significant improvement to its performance, adding radials won't either, making set up a breeze.

A GAP antenna has no traps, coils or transformers. This is important. The greatest sources of failure in multiband antennas are these devices. Perhaps you heard someone discuss a trap that had melted, arced or became full of water. Improvements to these inherent problems are the focus of the antenna manufacturer, while the basic design of the antenna remains unchanged. **GAP improved the trap by eliminating it!** Removing these devices means they don't have to be tuned and, more importantly, won't be detuned by the first ice or rain. The absence of these devices improves antenna reliability, stability and increases bandwidth.

Another major advantage to a GAP antenna is its NO tune feature. Screws are simply inserted into predrilled holes with a supplied nutdriver.

The secret is out and people in the know say:

CQ–"The GAP consistently outperformed base-fed antennas...and was quieter."

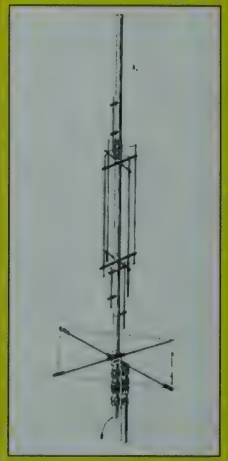
73–"This is a real DX antenna, much quieter than other verticals."

RF–"To say this antenna is effective would be a real understatement. Switching back and forth on 40m between another multiband HF vertical and the GAP, there was no comparison. Signals were always stronger on the GAP, sometimes by S units, not just DB's."

Worldradio – "These guys have solved the problem associated with verticals. That is, an awful lot of RF is wallowing around and dropping into the dirt instead of going outward bound. A half-wave vertical does need radials if it is end fed (at the bottom). But the same half-wave vertical does not (as much, hardly at all) if is fed in the center."

IEEE–"Near field and power density analyses show another advantage of this antenna (asymmetric vertical dipole): it decreases the power density close to the ground, and so avoids power dissipation in the soil below it. The input impedance is very stable and almost independent of ground conductivity. This antenna can operate with high radiation efficiency in the MF AM standard broadcast band, without the classical buried ground plane, so as to yield easier installation and maintenance."

Latest Release: **TITAN DX**



This all purpose antenna is designed to operate 10m-80m, WARC bands included. It sits on a 1-1/4" pipe and can be mounted close to the ground or up on a roof. Its bandwidth and no tune feature make it an ideal antenna for the limited space environment as well as a terrific addition to the antenna farm.

MODEL	BANDS OF OPERATION											HT	WT	MOUNT	COUNTER-POISE
	2m	6m	10m	12m	15m	17m	20m	30m	40m	80m	160m				
Challenger DX	■	■	■	■	■		■		■	■		31.5'	21 lbs	Drop In Ground Mount	3 Wires @ 25'
Eagle DX			■	■	■	■	■		■			21.5'	19 lbs	1-1/4" pipe	80" Rigid
Titan DX			■	■	■	■	■	■	■	■		25'	25 lbs	1-1/4" pipe	80" Rigid
Voyager DX							■		■	■	■	45'	39 lbs	Hinged Base	3 Wires @ 57'

GAP

ANTENNA PRODUCTS, INC.
99 N. Willow Street
Eellsmere, FL 32948
tel: (561)-571-9922
web: gapantenna.com

TO ORDER, CALL AES...

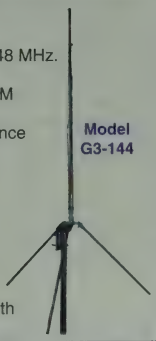
1-800-558-0411

*See Price List for **GAP** Quick-Tilt Mounts, Counterpoise and Guy Kit Prices*

HUSTLER®

Model G3-144

The G3-144 is the newest addition to the Hustler Base Station line. Designed with the cost conscious amateur in mind, this small, inexpensive antenna delivers more gain than other antennas in its price range. Ideal for a home or emergency command post

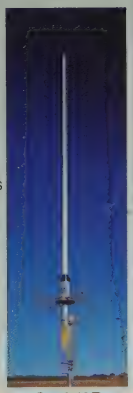


Model G3-144

ELECTRICAL
- Frequency Range: 144-148 MHz.
- Gain: 3 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 7' 5"
- Weight: 2.0 lbs
- Wind Survival: 100 mph.
- Wind Area: 0.5 ft.²
- Mounting: 1 to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G6-270R
Dual band
2 Meter & 440 MHz



G6-270R

ELECTRICAL
- Frequency range: 144-148 MHz, 435-455 MHz.
- Gain: 6 dB
- Maximum power: 100 Watts
- Bandwidth: 4 MHz – 2 Meters 10 MHz – 440 Meters
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 7' 6"
- Weight: 5.3 lbs.
- Wind Survival: 100 mph
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

Model G6-440 (see photo above)

ELECTRICAL
- Frequency range: 440 - 450 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 10 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: Type N female
- Length: 7' 3"
- Weight: 5.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: one piece radome

VHF and UHF Omni Directional Fixed Station Vertical Antennas

Model G7-144
Two Meter

The G7-144 is totally self supporting and is easily assembled. When disassembled the longest part is approximately 4' which makes it easy to handle and ship via UPS.

ELECTRICAL
- Frequency Range: 144 - 148 MHz.
- Gain: 7 dB
- Maximum Power: 1 KW FM
- Bandwidth: 4 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: N female
- Length: 15' 4"
- Weight: 10.0 lbs.
- Wind survival: 100 mph
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G6-144B
Two Meter (see photo above)

ELECTRICAL
- Frequency range: 143 - 149 MHz.
- Gain: 6 dB
- Maximum power: 1 KW FM
- Bandwidth: 6 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

MECHANICAL
- Termination: SO-239
- Length: 9' 9"
- Weight: 6.8 lbs.
- Wind survival: 100 mph.
- Wind Area: 1.4 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Model G7-220 (see photo above)

ELECTRICAL
- Frequency range: 220 - 225 MHz.
- Gain: 7 dB
- Maximum power: 1 KW FM
- Bandwidth: 5 MHz.
- VSWR: < 1.5:1 @ resonance
- Impedance: 50 ohms

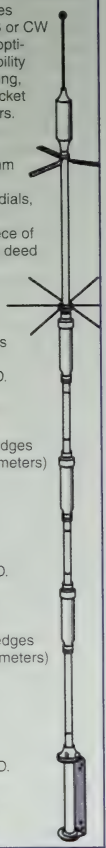
MECHANICAL
- Termination: Type N female
- Length: 10' 2"
- Weight: 7.0 lbs.
- Wind survival: 100 mph.
- Wind Area: 0.96 ft.²
- Mounting: Up to 1 ¾"
- Construction: High strength fiberglass & aluminum.

Fixed Station Multi-Band HF Vertical Antennas

Our exclusive trap design offers the lowest loss possible. A special extrusion process allows us to produce trap covers to an otherwise unattainable close tolerance, assuring accurate and permanent resonance. Our highly accurate traps provide top signal reports and consistent contacts.

Accurate tuning is made possible by the wide range of tuning flexibility designed into our verticals. Not only can you use the normal adjustable tubing to change resonance, but the traps themselves can be field tuned for an additional 2 MHz. shift. This flexibility will enable you to achieve a good S.W.R. even if your installation is not ideal.

- Broadbanded – low VSWR at band edges
- Power capability – full legal limit on SSB or CW
- Solid one inch fiberglass trap forms for optimum electrical and mechanical stability
- Heavy wall, high strength aluminum tubing, heavy duty aluminum mounting bracket and low loss, high strength insulators.
- Stainless steel clamps and hardware.
- Easy assembly and tuning.
- Single line feed with any length of 50 ohm coax.
- Use as ground mount with or without radials, or elevated mount with radials.
- All of the BTVs can be mounted in a piece of PVC and disguised as a flagpole in deed restricted neighborhoods.



Model 6-BTV

Bands 10-15-20-30-40 & 75 or 80 meters
Length/weight 24 ft. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 5-BTV

Bands 10-15-20-40 & 75 or 80 meters
Length/weight 25 ft. 1 in. / 16.5 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 29 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 2:1 or better at band edges on 10-40 meters (100 KHz. On 75 or 80 meters)

Model 4-BTV

Bands 10-15-20-40 meters
Length/weight 21 ft. 5 in. / 15 lbs.
Mounting Vertical support up to 1.75" O.D.
Wind Load 28 lbs. @ 70 mph.
Power capability Full legal limit SSB/CW
VSWR at resonance 1.15 to 1 or better
Bandwidth VSWR 1.6:1 at band edges

Model 30-MTK

30 meter add on kit for the 4 and 5 BTV

The Spirit Series

Hustler's ominidirectional, collinear design base station antennas are enclosed in a rugged fiberglass radome that will help minimize pattern variations due to high winds or extreme conditions. We offer these antennas in 144, 220, 440, 900 MHz and 1.2 Ghz. The gain will be unity, 3.6.9, or 12 dB depending on the frequency. Custom frequencies available, call AES for a quote.

www.new-tronics.com

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563

Phone: 940.325.1386
Toll Free: 877.994.9499
Fax: 940.328.1409

VHF and UHF Mobile Antennas

Unity Gain

THF

VHF/UHF Trunk Lip Mount Antennas.

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U with PL-259 connector

UHT-1

VHF/UHF Roof/Deck Hole Mount Antenna.

- Frequency range: 140-500 MHz
- ¼ wave length
- Cut length for low VSWR
- 15 ft RG58/U

UGM

VHF/UHF Magnetic Mount Antenna

Extend the range of handheld or portable radios. Trimmable 17-7 PH stainless steel radiator is cut to ¼ wavelength for low SWR and unity gain from 140 to 500 MHz. Trim chart included. Highly efficient mylar protected magnetic mount attaches conveniently to magnetic compatible surfaces. No drilling! Supplied ready for operation with 10 ft. of mini-coax with BNC connector

MKR-2 Radial Kit

Used to convert RX, SF & CG series coils to fixed station operation. Mount can accept any 3/8x24 threaded coil and contains three radials

MKR-2

Collinear

Series Fed Mobile Antennas

SF-2 144 MHz 3.4 dB
SF-220 220 MHz 3.4 dB

- Power rating: 100 watts
- 3/8" x 24 thread
- 5/8 wave

RX-2 144 MHz 3.4 dB
RX-220 220 MHz 3.4 dB
RX-440 440 MHz 5.0 dB

- Coil same as above
- 3 oz magnet
- 15 ft RG-58/U coax
- PL-259 connector

Collinear High Gain Mobile Antenna

CG-144 5.2 dB 6 MHz Bandwidth
CG-220 5.2 dB 4 MHz Bandwidth

- Power rating: 200 watts
- 3/8"x24 thread
- 5/8 over ¼ wave
- Collinear design

CGT-144 5.2 dB 6 MHz Bandwidth
CGT-220 5.2 dB 4 MHz Bandwidth

- Coil same as above
- Swivel ball for vertical positioning
- Quick disconnect for easy removal
- Trunk mount base
- 17 ft RG58/U coax
- PL-259 connector

New-Tronics Antenna Corporation
One New-Tronics Place
Mineral Wells, Texas 76067-9563

MX Series NMO Magnetic Mount Antenna

MX-2	144 MHz	3.4 dB
MX-220	220 MHz	5.0 dB
MX-440	440 MHz	5.0 dB

- Power rating: 200 watts
- Chrome top
- NMO style coil
- 10 oz magnet
- 17 ft RG58/U coax & PL-259 connector

MX-2B	144 MHz	3.4 dB
MX-440B	440 MHz	5.0 dB

- Same as above but all black coil

BBG Series NMO Swivel Ball & Spring Antenna

BBG-144 3.4 dB
BBG-440-5 5.0 dB

- Power rating: 200 watts
- NMO style coil
- Chrome top, swivel ball and spring

BBGT-144 3.4 dB
BBGT-440-5 5.0 dB

- Same coil as above
- Includes Trunk mount
- 17 ft RG58/U coax & PL-259 connector

Dual Band 2 meter/ 70cm Mobile Antennas

Hustler's new Dual Band antennas are designed to perform even in the toughest environments. Base coils are ultrasonically welded to ensure mechanical integrity and durability.

LMC-270

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style coil
- Coil and whip only

MX-270

- 2.4 dB/4.0 dB gain
- Power rating: 100 watts
- NMO style magnetic mount
- 17 ft RG58/U coax & PL-259 connector

LM Series NMO Coils

LMG, LMC AND LMB Antennas are coil & whip only and require an NMO mount.

LMG-144	3.4 dB gain
LMG-440-5	5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Chrome top and bottom
- Contact-silver plated push pin

LMC-144	3.4 dB gain
LMC-440-5	5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Black coil with chrome top

LMB-144	3.4 dB gain
LMB-440-5	5.0 dB gain

- Power rating: 200 watts
- NMO style coil
- Black coil

HUSTLER®

Scanner Base Station Antenna

Hear more at a greater distance with Hustler's external omnidirectional scanner antennas.

DCX

- 40 – 950 MHz
- Vertically polarized
- Mounts to 1 ¼" OD mast or flat surface
- 55" cone elements
- 20" disc elements
- Solid aluminum rod for high strength design
- Hardware & mount included

DCL

- Same as DCX
- 50 ft RG58/U coax with PL-259 on one end and BNC or Pin plug on the other end

Mobile Scanner Antenna

Hear all of the action in your car. Covers 30-50, 148-174, 430-450, 800-950 MHz

MRM

- 3 oz Magnet mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector

MOT

- Trunk mount
- 15 ft RG58/U coax
- Available with BNC or Pin plug connector

MOR

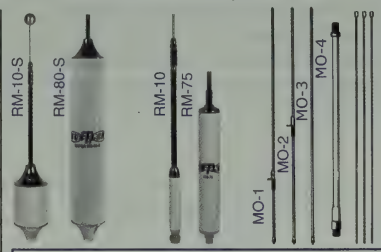
- ¾" Roof or deck mount
- 12 ft RG58/U coax
- Available with BNC or Pin plug connector

Phone: **940.325.1386**
Toll Free: **877.994.9499**
Fax: **940.328.1409**

Amateur HF Mobile 10,12,15,17,20,30,40,75 and 80 Meter

If you are serious about HF mobile operation the **Hustler** HF Mobile System is the obvious choice. **Hustler** manufactures and sells more HF mobile antennas world wide than anyone. No other manufacturer offers the convenience, the flexibility or the pure performance that **Hustler** does. Our HF Mobile System offers a wide variety of components which enable you to customize your installation to fit your present and future needs. A choice of four different support masts provides an installation solution for every vehicle. A selection of seventeen interchangeable resonators in high and moderate power levels and varying bandwidths are available. A full complement of accessories such as springs, a multiband adapter and a quick disconnect device complete the system. Experience the satisfaction that comes with owning the best in the world — the **Hustler** HF Mobile System.

Model	Type	Band	Power SSB	Bandwidth 2:1 SWR	Weight lbs
RM-10	Standard	10 m	400 W	150-250 KHz	0.41
RM-11	Standard	11 m	400 W	150-250 KHz	0.41
RM-12	Standard	12 m	400 W	90-120 KHz	0.41
RM-15	Standard	15 m	400 W	100-150 KHz	0.42
RM-17	Standard	17 m	400 W	120-150 KHz	0.44
RM-20	Standard	20 m	400 W	80-100 KHz	0.46
RM-30	Standard	30 m	400 W	50-60 KHz	0.84
RM-40	Standard	40 m	400 W	40-50 KHz	0.84
RM-75	Standard	75 m	400 W	25-30 KHz	1.05
RM-80	Standard	80 m	400 W	25-30 KHz	1.05
RM-10S	Super	10 m	1 kW	250-400 KHz	1.00
RM-11S	Super	11 m	1 kW	250-400 KHz	1.00
RM-15S	Super	15 m	1 kW	150-200 KHz	1.20
RM-20S	Super	20 m	1 kW	100-150 KHz	1.25
RM-40S	Super	40 m	1 kW	50-80 KHz	1.80
RM-75S	Super	75 m	1 kW	50-60 KHz	2.10
RM-80S	Super	80 m	1 kW	50-60 KHz	2.10



Mobile HF Antennas
Hustler Masts

MO-1
Mobile mast 54" length, for bumper, fender or hitch mounting. Folds over at 15" above base. Made of highest quality heat treated Stainless steel and aluminum parts. 3/8" x 24 threaded

MO-2
Mobile mast, 54" length, for bumper, fender or hitch mounting. Folds over at 27" above base. 3/8" X 24 threaded

MO-3
Mobile mast, 54" length, for bumper. fender or hitch mounting. solid aluminum with white vinyl coating. Does not fold over. 3/8" X 24 threaded

MO-4
Mobile mast 22" length, trunk or deck mounting. Three retuning tip rods included. 3/8" X 24 threaded

Professional Chrome Series

C-32
Chrome plated 1 ½" ball mount. Furnished complete with rubber pad, steel backup plate, all mounting hardware and hex key.

C-30
Chrome plated 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

C-29
Stainless steel 4" spring. Copper braided center conductor to prevent detuning. Accepts 3/8" x 24 antennas

Resonator Spring
RSS-2
Finest quality stainless steel spring for use between resonator and Hustler antenna mast. This 3" spring absorbs shock when the antenna strikes overhanging obstructions. Supplied ready for easy installation with 3/8" x 24 threads, female on one end, and male on the other. Copper braided center conductor to prevent detuning.

Magnet Mount
MBM "Super" Magnet
- 95 lbs. Pull strength
- Powerful 5 inch diameter magnet
- 8 pole magnet
- 16 feet RG 58/U coax with PL-259 connector.
- 3/8" x 24 female threads
- Recommended for antennas up to 48".

Quick Disconnect

QD-2
100% Stainless Steel. Remove antenna from mount in seconds with push and twist release. Every part including the compression spring is manufactured from the best available 100% stainless steel. Special design of enclosed compression and lock assembly assures freedom against ice and dirt jam up. Accommodates small, medium and large mobile antennas. Equipped with 3/8" x 24 threads, female on one end and male on the other.

VP-1
Automatic bandswitching using any three Hustler HF resonators. Adapts any Hustler HF mast to tri-band operation. No additional tuning necessary.

Bumper Mount BM-1

Design is rugged for supporting Hustler antennas with the Standard or Super resonators. Heavy stainless steel strap, stronger than chain, fits most bumpers inconspicuously. Assembly is easily installed and held rigid by "J" bolts at the top and a bumper strap clamp at the bottom.

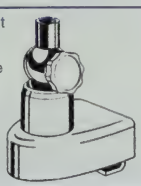
Professional Stainless Steel Series

SSM-1
Heavy-duty mount with 4" stainless steel spring with copper braided center conductor to prevent detuning. 180 degree adjustable 2" diameter stainless steel ball. Accepts 3/8" x 24 antennas

SSM-2
Heavy-duty 2" diameter stainless steel ball mount. 180 degree adjustable. Accepts 3/8" x 24 antennas.

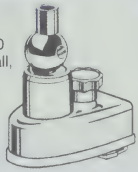
SSM-3
Heavy-duty stainless steel 4" spring with 3/8" x 24 coupling stud. Copper braided center conductor to prevent detuning.

HLM Trunk lip mount designed for hatch and slanted back vehicles. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.



TLM Trunk lip mount, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

HOT Trunk lip mount with easy off/on by using thumb knob. 180 degree 1" diameter ball, which accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.



RVM Recreational vehicle mount with heavy duty bracket. Easy antenna removal or lay down with thumb knob. 1" ball that accepts 3/8 x 24 antennas. RG58/U coax with PL-259 connector.

2M/70CM Dual Band Series Antennas

Radiall/Larsen dual band antennas provide excellent performance for simultaneous use of VHF and UHF amateur frequencies. Each Radiall/Larsen dual band antenna is factory preset to guarantee optimum performance with no tuning required.

NMO-2/70-SH $40.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB w/spring
Height: 17"
Whip: WNMO2/70SH
Lower profile amateur 2m/70cm dual band antenna with spring for NMO mounts.

NMO-2/70B (black) $65.99
Freq: 144-148/440-450 MHz
Gain: 2.4/4dB
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 33.5"
Whip: W2/70B
Amateur 2m/70cm dual band antenna for NMO mounts. Available in chrome (below).

NMO-2/70C (chrome) $60.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: 5/8 Wave
UHF: Collinear
Base: NMO2/70BCO
Height: 36.75"
Whip: W2/70
Amateur 2m/70cm dual band antenna for NMO mounts. Available in black (above).

MM-2/70PL $50.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: 3' Round Mag Mount
Height: 17"
Whip: WNMOQ2/70B
Complete 2m/70cm magnetic moung antenna with 12' of RG58A/U coax.

NMOQ-2/70-B (black) $36.99
Freq: 144-148/440-450 MHz
Gain: Unity
Power: 100 Watts
Type: VHF: Center Loaded 1/4
UHF: Center Loaded 3/4
Base: NMOUHFBASEB
Height: 18"
Whip: WNMOQ2/70B

Kulglass Series High Performance Glass Mount Antennas

Radiall/Larsen's Kulglass™ (KG) series uses a patented low impedance design and advanced materials to produce the world's best on-glass antenna. The KG uses advanced resin polymer plastic to completely enclose the circuit board or loading coil for mechanical durability and weather resistance. 3M's best adhesive tape, plus Radiall/Larsen's unique bonding enhancer ensure the best possible grip to the glass.

KG-2/70-CX-PL $116.99
Freq: 144-148/442-448 MHz
Gain: 2.4/4.5dB*
Power: 50 Watts
Type: VHF: 1/2 Wave
UHF: Collinear
Base: KG2/700/S
Height: 32.5"
*Ground plane required for gain
Glass mount dual band antenna for 2m/70cm amateur radio frequencies.

KG-144-UD-PL $83.99
Freq: 144-160 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG1440/S
Conn: PL-259
Height: 48"
Whip: WKG144
Complete KG glass mount antenna.

KG-220-UD-PL $83.99
Freq: 220-225 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG2200/S
Conn: PL-259
Height: 26.5"
Whip: WKG220
Complete KG glass mount antenna.

KG-440-UD-PL $71.99
Freq: 440-460 MHz
Gain: 2.4dB
Power: 100 Watts
Type: 1/2 Wave
Base: KG4400/S
Conn: PL-259
Height: 15"
Whip: WKG440
Complete KG UHF glass mount antenna with coax and connector.

Tri-Band Scanner Antenna

NMO-150450800 ..... $29.99
Freq: 150-165/450-470/806-940 MHz
Gain: 2.14 dBi
Type: Tri-Band Scanner Only
Mount: NMO
Height: 16.5"

Radiall/Larsen Exclusive Kulduckie Portable Series

Superior transmit range and tough mechanical durability are the hallmark of Radiall/Larsen portables. All center cores are made of brass or copper plated steel to maximize RF emission. Fully soldered connections and silver-plated components improve electrical efficiency. Double spring BNC's also reduce wear on the mount. Other styles available.

KD4-146-HQ (2m) $25.99
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/4 Wave Helical
Conn: BNC
Height: 8"

KD-14-2M-HW $38.99
Freq: 144-148 MHz
Gain: Unity
Power: 25 Watts
Type: 1/2 Wave Telescoping
Conn: BNC
Height: 8.5 to 42"
Whip: WKD142MHW

KD4-2/70 ..... $36.99
Freq: 144-148/442-448 MHz
Gain: Unity
Power: 25 Watts
Type: VHF: Loaded 1/4 Wave
UHF: 1/4 Wave
Conn: BNC
Height: 8"
Impedance matching transformer provides high Q and deeper resonance.

Industry's Best NMO Mobile Antennas

Radiall/Larsen's own version of the standard 3/4" Motorola TAD/TAE type mount uses advanced design, materials and construction to provide a premium mount. For demanding outdoor applications, the chemical resistant NMO series is housed in a resin polymer plastic shell which is completely molded around the nickel plated brass whip stud to eliminate moisture damage. Our superseal gasket also greatly reduces water intrusion under the base.

NMO-27C (chrome) $33.99
Freq: 27-31 MHz
Gain: Unity
Power: 200 Watts
Type: Loaded 1/4 Wave
Base: NM027BCO
Height: 53"
Whip: W490

NMOQ-SPEC $13.99
Freq: 136-512 MHz
Gain: Unity
Power: 200 Watts
Type: 1/4 Wave
Height: 21"

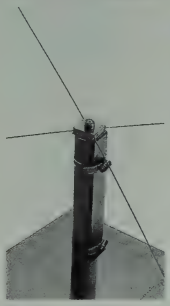
NMO-150C (chrome) $30.99
NMO-150B (black) $33.99
Freq: 144-174 MHz
Gain: 3dBd
Power: 200 Watts
Type: 5/8 Wave
Base: NM0150BCO
Height: 51.75"
Whip: W490

NMO-220C (chrome) $30.99
NMO-220B (black) $36.99
Freq: 220-225 MHz
Gain: Unity
Power: 200 Watts
Type: 5/8 Wave
Base: NM0220BCO
Height: 34.5"
Whip: W400

NMO-440C (chrome) $29.99
NMO-440B (black) $35.99
Freq: 440-460 MHz
Gain: 4.5dBd
Power: 200 Watts
Type: 5/8 over 1/2 Wave
Base: NMOUHFBASEB
Height: 33"
Whip: W154

Base Station Antennas

Radiall/Larsen manufactures a variety of small base station for directional and omni-directional applications. Each base station antenna is designed with premium materials to withstand the most demanding weather conditions. All base station antennas come with mounting hardware to attach to a pole up to 2" in diameter.



BSA-K $53.99
Freq: 144-512 MHz
VSWR: 1.5:1 or less
Power: 200 Watts
Conn: UHF Female
Whip: 51-3/4"

Complete base station kit for designing a base station unit from 144-512 MHz. Comes with mounting hardware (antenna is extra). Works with NMO and UHF mount antennas.

Mobile GPS Antenna

GPS-NM002 ..... 79.99
Freq: 1575.4 MHz
Gain: 5 dBic/28 ± 2 dB (LNA)
Voltage: 5 VDC
Type: GPS NMO mount
Height: 1.3" high x 2.9" diameter

Mounts

Larsen has a full line of permanent and temporary mounts to solve nearly every installation problem. Each mount is manufactured of the highest quality materials, including premium coax.

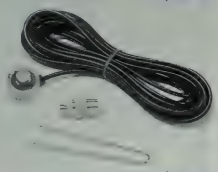
NMO-K $15.99
Motorola style roof mount
Size: 3/4"
Coax: 17' RG-58A/U
Conn: PL-259

NMO-MM $32.99
Motorola style magnetic mount
Size: 3-1/2" x 3" Rectangle
Coax: 12' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

More RADIALL/LARSEN
See listing in Price Guide

NMO-TLP $29.99
Motorola style trunk lip bracket, black
Size: 1-3/4" x 1-3/4"
Coax: 17' RG-58A/U
Conn: PL-259

PO-K $30.99
SO-239 female type roof mount
Size: 3/4" hole
Coax: 17' RG-58A/U
Conn: PL-259



PO-MM $36.99
SO-239 female type magnetic mount
Size: 3-1/2" x 3" Rectangle
Coax: 17' RG-58A/U
Conn: 58FCP
Pull Strength: 90 lbs.

TMB-34 (chrome) $5.99
TMB-34B (black) $7.99
Trunk mounting bracket for NMO antenna.
Size: 1-5/8" x 1-5/8"
Mount: NMO

Parts and Accessories

W-490 ..... $9.99
Chrome .100 tapered replacement whip for 144 MHz. (49")

W-490B $12.99
Black .100 tapered replacement whip for 144 MHz. (49")

W-2/70B $27.99
Black .100 dia. replacement whip for NMO 2/70B (approx. 31")

RADIALL/LARSEN
antenna technologies

Radiall/Larsen Antenna Technologies
3611 NE 112th Avenue
Vancouver, WA 98682
360 944-7551, Fax: 360 944-7556
Email: info@radialllarsen.com
Web: www.radialllarsen.com

ISOTRON
BILAL COMPANY

See product reviews **73 Magazine:** Oct. '84, Sept. '85, Mar. '86, Nov. '94, Apr. '96. **CQ magazine:** Dec. '88. **WR:** Mar '91.
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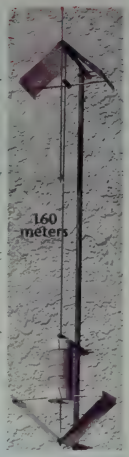
137 Manchester Dr. Florissant, CO 80816 • 719/687/0650

Antennas for Very Limited Space
Simple & Effective...

2002 – Our 22nd Year!

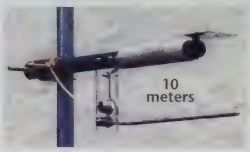
- Solve restricted space problems.
- Easy, quick, and simple installation.
- Handles up to 1,000 watts PEP.
- Excellent portable operation - emergencies, RV's, field day, motels, Maritime operation.
- Not dependent on a grounding system for performance.
- Unobtrusive appearance, making a very discreet looking installation.
- Very Stealth.
- Excellent Low Noise reception and transmitting quality performance is not compromised by its compact design.
- Tunes and performs without radials.
- Multi-band operation on one feedline with back to back mounting. Any other combination of three bands may be substituted on special order.
- Durable construction, can be used in extreme weather conditions, will not bend in high winds. No motors or mechanical tuning devices to fail.



Common Specifications: 1000W PEP power rating (300W, CW, AM, FM, RTTY) • 50–75Ω coax feed • Omni-directional radiation pattern • Bandwidth shown is within 2:1 SWR but may vary with environment • Stainless steel fasteners • Zinc plated u-bolts • Tempered aluminum components • Cast acrylic and PVC insulators • THHN #14 solid copper coils • 85 mph wind rating

Individual Specifications:

Model	160C	80	40	20	15	10	6
Band	160 meters	80 meters	40 meters	20 meters	15 meters	10 meters	6 meters
Freq. (MHz)	1.8-2.0	3.5-4.0	7.0-7.3	14-14.35	21-21.450	28-30	50-54
hxwxd (in.)	114 x16x15	32x16x15	22x16x15	21x8x4	21x1½x4	16x1½x4	16½x2x4
BW	100kHz	110kHz	250KHz	350kHz	450kHz	1MHz	1.25MHz
Windload (sq. ft.)	1.697	1.37	1.0	0.23	0.23	0.16	0.13
Weight	7 lbs.	6 lbs.	4 lbs	2 lbs	2.0 lbs	1.5 lbs	1.5 lbs.
PRICE	**$173.99**	**$98.99**	**$88.99**	**$78.99**	**$78.99**	**$78.99**	**$78.99**



Multiband Models (top & right)

80/40 COMBO Same as individual model specifications above. Operate 80/40 meters with one feed line 32' x16"x30", 2.37 sq. ft. 10 lbs..... **$169.99**

20/15/10 COMB Covers same as individual model specifications above. Operates 20/15/10 meters with just one feed line..... **$198.99**

SPECIAL ORDER! – **You can make up your own combination. Substitute 30m for 40m in the 80/40 Combo or 17m for 15m in the 20/15/10 Combo. MARS, CAP and Commercial models available.**

DIAMOND ANTENNA

D-130J Super Discone Copied by many, equaled by none. Professional quality. Ultra-wideband omnidirectional – receives amateur, air traffic control, police, fire and other utilities from 25-1300MHz. Can transmit 80-1300MHz (50MHz with adjustment). Rustfree stainless steel employed in major component parts. Ideal antenna for scanners and receivers. Use standard RG213 or RG8X coax. Mast mounting U-bolts included. 67"h, 2.2 lbs..... **$89.99**

AOR®

LA-350 Active Shortwave Loop Two 12" diameter interchangeable antenna elements cover 3.0 to 9.0 and 9.0 to 30MHz. Rotates to enhance reception and null unwanted interference. Built-in 13.5 dB gain amplifier and tuning control to peak performance. Supplied with two elements, AC adapter, instruction manual and 20 inch cable with BNC connector.....Milwaukee only **$299.99**

Van Gorden Engineering

DIPOLE ANTENNAS

Complete with Hi-Q 1:1 balun, #14 stranded copper antenna wire, plastic insulators, and 100 ft. of nylon rope. Rated for full legal power. May be used in an inverted-V configuration.

D-80 80m, 130' **$32.99**
D-40 40m, 66'..... **29.99**
D-20 20m, 33'..... **28.99**
D-15 15m, 22'..... **27.99**
D-10 10m, 16'..... **26.99**

Shortened Dipoles Construction is the same, and includes traps as shown above.

SD-80 80m, 90'..... **$36.99**
SD-40 40m, 45'..... **34.99**

ALL BANDER All Bander Dipole Covers 160 to 10M using an antenna tuner with balanced output. Full 135 ft. long (or less, as an inverted V or sloper). Trim to fit small lots. Assembled, with #14 gauge copper wire, center and end insulators and 100 ft. of 450Ω balanced line. 2KW PEP..... **$29.99**

SHORTY All Bander As above, but with loading coils to shorten the length to 70' overall... **$44.99**

MULTIBAND ANTENNAS

G5RV Covers 3.5–30MHz, plus 1.8MHz as a Marconi-type antenna with a tuner. Consists of a 102 ft. flat top with a 31' long section of 300Ω (450Ω for models below) KW twinlead, a transformer/coupler and 70 ft. of RG-8X coax and connector. 2KW PEP, assembled..... **$50.99**

G5RV JR 7–30MHz , 52', 17' twinlead..... **24.99**
G5RV-E 3.5–30MHz, 102', 31' twinlead..... **28.99**
G5RV-M 1.8–30MHz, 204', 65' twinlead.... **50.99**

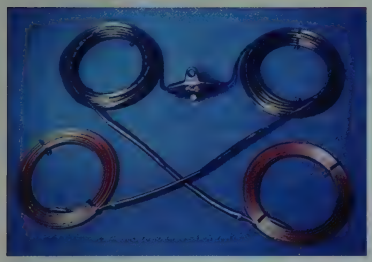
ANTENNA SUPERMARKET

EAVES TWIN The Eavesdropper Shortwave Broadcast Receiving Antenna A 42 ft. long center-fed dipole with 8 automatic bandswitching trap circuits which electrically separate the antenna segments – just tune your receiver to the desired band. The Eavesdropper covers the 11, 13, 16, 19, 21, 25, 31, 41, 49, 60, 75 and 90 meter bands. Includes The Zap-Trapper® gas-tube lightning arrestor for receiver protection and 50 ft. of 450-pound test support rope. Completely assembled, ready to use. With 100' of 72Ω twin lead..... **$89.99**

EAVES SO239 With weather-proofed SO-239 coaxial center connector, coax not included . **$89.99**

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

www.iacantennas.com



Double Bazooka Half Wave Antennas extremely broad banded that they can operate efficiently across the entire Ham band with little change to SWR. IAC's design results in quiet, broadband operation with 98% efficiency and a 50Ω SO-239 balanced feedpoint without a balun. Mount horizontally or inverted V. Handles full legal limit.

160M Bazooka 1.8MHz (160M), 248'. **$214.99**
80M Bazooka 3.5MHz (75-80M), 121'... **150.99**
40M Bazooka 7MHz (40M), 64'..... **126.99**

Double Bazooka Shorty Antennas utilize a unique High Q coil design coupled with the already proven Double Bazooka characteristics providing maximum radiation efficiency and broad bandwidth. Mount as inverted V. Handles full legal limit power. Operates efficiently on other bands with tuner.

160M BAZ SHORT (160M), 168' **$229.99**
80M BAZ SHORT (75-80M), 84'..... **$159.99**
40M BAZ SHORT (40M), 40'..... **$129.99**

Half Sloper Antennas are a quarter wavelength long and look like half of the Double Bazooka (pictured). Mounts from a tower or vertical metal support. Feeds directly with 50Ω coax utilizing SO-239 connection. Handle full legal power. Operate efficiently on other bands with tuner.

160M-S 160M, 127 ft..... **$140.99**
80M-S 75-80M, 67 ft., operates 80-10m with antenna tuner **$115.99**

hy-gain

HF Vertical Antenna Effective counterpoise replaces radials and ground system • Automatic bandswitching with a single coax cable feed. Each band is individually tunable. Extra wide VSWR bandwidth. End fed with broadband matching unit. DC grounded. • Low angle of radiation - 17° for exciting DX. • 2.5 sq. ft. wind surface area • Small area required for mounting easily on roofs, decks and patios. • Handles full legal limit 1500W key down for two minutes • Aircraft quality aluminum tubing, stainless steel hardware; 80 mph wind survival.

AV-620 20-6M 6-Band No traps, coils or radials. 22.5' tall, 10.5 lbs..... **$269.99**

AV-640 40-6M 8-Band Uses 1/4-wave stubs on 6 thru 17M and end loading and capacity hats on 15 thru 40M. 25.5' tall, 17.5 lbs **$359.99**

SOLARCON ANTENNAS A99

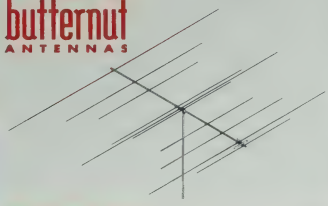
A-99 10M Base Antenna with Twin Ring Adjust-A-Match Tuning Voltage-fed, half wave variable, mutual transfer inductance tuned antenna. It's economical and easy to use! The SOLARCON sealed base unit is tuned with external inductance rings. Impedance remains constant over the tuning range. Simple Tuning! Raising the tuning rings raises the frequency and lowering the rings lowers the resonant frequency.

Rugged, three-piece, white fiberglass construction with triple-plated brass fittings. It's easy to assemble and install. The optional GPK-1 ground plane radial kit makes it perform even better!

• Full 10 meter band coverage • 3 dBi gain • 2kW power limit • Low angle of radiation for DX • DC grounded • Mounts on 1.5 in. mast • Uses 52Ω coaxial cable with SO-239 connector • 17 ft. 8 in. length..... **$64.99**

GPK-1 Groundplane Kit Use with the A-99 for 30% more power gain and lower angle of radiation. Collar and 4 fiberglass radials..... **$39.99**

butternut ANTENNAS



SKYHAWK 3X10 Triband Yagi A design breakthrough. 3-band, 10-element, 20/15/10M, rust free ..... **Drop Ship $999.99**

HF-2V 80/40 Vertical 32' **$269.99**
HF-6VX 6-Band Vertical 26'..... **349.99**
HF-9VX 9-Band Vertical 26'..... **399.99**

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COMET™

HF/VHF/UHF MOBILE ANTENNA

For radios that operate HF/6M/2M/70cm

UHV-6 Designed for 6 and 2M and 70cm basic operation without tuning. Additional coverage for 40, 15 and 10 meters may be added by installing the supplied coils for those bands. Coils for 20, 17, and 80M are optional. Choose either one, two, or three coils and add one to the top, and one or two to the side, in any combination. Automatic bandswitching. Each HF element tunes independently without effecting VHF/UHF.

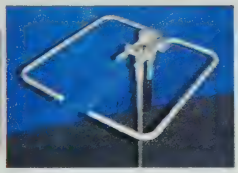
Only 7 ft. 2 in. tall with the 40M coil attached to the top. A unique fold-over hinge pivots approximately 5 inches from the bottom for garaging, entering parking structures, etc.

Installs on any standard SO-239 (PO) type mount; no special brackets are needed. Several duplexers/ triplexers are available for all multiband radios. – *see the index under duplexers for selection*..... **$149.99**

L-3.5 80M coil **34.99**
L-14 20M coil **29.99**
L-18 17M coil **29.99**
CF-530 1.3-90/125-470MHz dplxr . **69.99**
CF-706A 1.3-56/75-470MHz duplr **69.99**

CA-52HB4 Wide Band 6M Beam HB9CV, 4-element • 50MHz band frequency • 50Ω impedance • <1.5:1 (50-54 MHz) VSWR • 10.4dBi • Half power angle <54° • Over 19dB F/B ratio • 400W maximum power, SSB • Boom length, 10.5 ft. • 7.3 ft. turning radius • SO-239 connector • 1.0 to 2.5 in. mast diameter • 4 lbs, 14 oz..... **$119.99**

M²



HO Loops At times, when using highly directional VHF or UHF antennas, there are signals you cannot hear off the sides and back. The addition of an HO-Loop to your set-up will enable you to be aware of those stations you may be missing. Great for round tables, nets and monitoring for band openings.

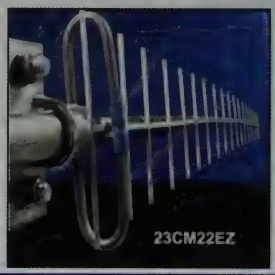
HO-Loops are horizontally polarized and omni-directional, ideal for mobile or base operation with contacts up to 200 miles not uncommon. Typical gain is 4.0+ dBd, and power rated at 800W or 1.5kW stacked. They're easily adjustable and have a wide bandwidth that ensures high performance regardless of the weather.

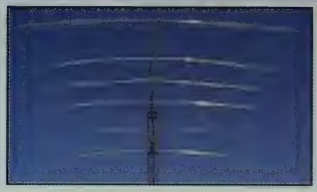
6M-HO-LOOP 50-50.3MHz, 29.5" sq.... **$113.99**
2M-HO-LOOP 144-144.5MHz 11.25" sq.... **49.99**
222-HO-LOOP 220-224MHz, 7.75" sq **49.99**
432-HO-LOOP 430-436MHz, 4.4" sq **49.99**

M² ANTENNAS - POSITIONERS - ACCESSORIES

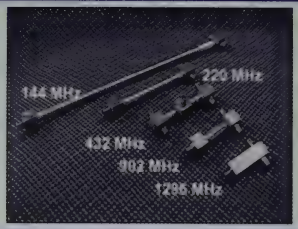
AMATEUR COMMERCIAL GOVERNMENT SCIENTIFIC

We have always offered performance and we have held that standard as our line grew. We continue to expand our line with innovative, longer lasting, trouble free antennas. In some models we bridge from amateur to commercial notably with our 23CM22EZ and EGGBEATER antennas. You have to look long and hard to find this much high performance variety!





* NEW KT36XA TRIBANDER *



See the Price Guide for more products or check out the M² Website at www.m2inc.com

M2 ANTENNA SYSTEMS, INC. 7560 N. Del Mar. Fresno, CA 93711
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WINEGARD®
Clearly the World's Best®

TV-2900 **Weatherproof Transformer** 82 channel, matching transformer for indoor or outdoor use. Adapts 75Ω coaxial cable with F-connector to terminals of a 300Ω TV antenna, TV set or coupler. Includes F-connector and boot..... **$2.99**

RG-6 75Ω TV Coaxial Cable with cellular poly dielectric, #20 copperweld center conductor, 100% aluminum foil shield and 40% aluminum braid shield provides low-loss, good conductivity, flexibility and tensile strength. Weather-proof F-connectors installed.

CX-0625 25 ft. length..... **$10.99**
CX-0650 50 ft. length..... **15.99**
CX-0675 75 ft. length..... **19.99**
CX-6100 100 ft. length..... **24.99**

CASTLE RIDGE PRODUCTS, INC.

COPPERWELD® Antenna Wire Forge-welding makes the two metals inseparable! Solid bare copper-over-steel wire – the best for antennas. Very strong, the steel core has very little stretch and long service life. The copper covering provides low RF resistance and solders easily. 12, 14 or 18 gauge.

AN-122 100 ft. #12..... **$29.99**
AN-123 150 ft. #12..... **39.99**
AN-124 250 ft. #12..... **59.99**
AN-126 500 ft. #12..... **99.99**
AN-128 1000 ft. #12..... **179.99**
AN-142 100 ft. #14..... **24.99**
AN-143 150 ft. #14..... **29.99**
AN-144 250 ft. #14..... **39.99**
AN-146 500 ft. #14..... **69.99**
AN-148 1000 ft. #14..... **119.99**
AN-181 250 ft. #18..... **17.99**
AN-182 500 ft. #18..... **29.99**

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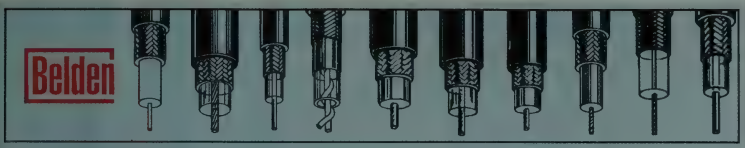
synthetic textiles, inc.

Black Dacron® Polyester Rope Constructed of strong double braid Dacron® polyester. It's black for UV protection and has excellent resistance to weather, mildew and abrasion. The rope ties and cuts easily and ends seal effectively with the application of a small flame or hot tool.

After a small initial "set" due to tightening of the braid, it has virtually no long term stretch, making it ideal for supporting dipoles, long wires, etc. Also, great for non-resonant guying of masts or towers. When used as an overhead boom support rope for beam antennas, it eliminates a conductive wire from the RF field, which is especially important in VHF/UHF applications.

100' 100 ft., 260+ lbs., 3/32"..... **$7.99**
100' 3/16 100 ft., 770+ lbs., 3/16"..... **16.99**
100' 5/16 100 ft., 1790+ lbs., 5/16"..... **22.99**
350' 350 ft., 770+ lbs., 3/16"..... **44.99**



COAXIAL CABLE

See Belden in the Price Guide

Model	Type	Dia. (in.)	Center conductor	Insulation type	Shield coverage	Jacket type	Imp. (Ω)	Vel. factor	Loss/100' 100 MHz
8216	RG-174 Sub-miniature	.11	26 AWG bare copper coat steel	Solid polyethylene	90% tinned copper braid	Black PVC	50Ω	66%	8.4 dB
8219	RG-58A/U	.195	20 AWG stranded bare copper	Foam polyethylene	96% tinned copper braid	Black PVC	53.5Ω	73%	4.5 dB
8240	RG-58/U	.195	20 AWG solid bare copper	Solid polyethylene	95% tinned copper braid	Black PVC	51.5Ω	66%	3.8 dB
8259	RG-58A/U	.193	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black PVC	50Ω	66%	5.4 dB
8262	RG-58C/U non-contaminating	.195	20 AWG stranded tinned copper	Solid polyethylene	95% tinned copper braid	Black. non-contaminating PVC	50Ω	66%	5.4 dB
9258	RG-8X Mini-8	.242	16 AWG stranded bare copper	Foam polyethylene	95% bare copper braid	Black PVC	50	82%	3.1 dB
8214	RG-8/U	.403	11 AWG stranded bare copper	Foam polyethylene	97% bare copper braid	Black PVC	50Ω	78%	1.7 dB
8237	RG-8/U	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black PVC	52Ω	66%	1.9 dB
8267	RG-213/U non-contaminating	.405	13 AWG stranded bare copper	Solid polyethylene	97% bare copper braid	Black. non-contaminating PCV	50Ω	66%	2.1 dB
9913	Low loss semi-flexible RG-8/U	.405	10 AWG solid bare copper	Semi-solid polyethylene	100% bonded foil plus 90% tinned copper. braid	Black PVC	50Ω	84%	1.3 dB
9913F7	Low loss flexible RG-8/U	.405	10 AWG stranded bare copper	Gas-injected foam polyethylene	100% bonded foil plus 90% tinned copper braid	Black Belflex®	50Ω	84%	1.5 dB
8241	RG-59/U	.242	23 AWG solid bare copper	Solid polyethylene	95% bare copper braid	Black polyethylene	75Ω	66%	3.4 dB
8213	RG-11/U	.405	AWG 14 solid bare copper	Gas-injected foam polyethylene	97% bare copper braid	Black polyethylene	75Ω	84%	1.3 dB
8238	RG-11/U	.405	18 AWG stranded tinned copper.	Semi-foam polyethylene	97% bare copper braid	Black PVC	75Ω	66%	2.0 dB

ROTOR CABLE

8448 Standard duty, 8 wire. Up to 100 ft. runs. Six #22 and two #18 AWG tinned copper conductors. PVC insulation and PVC jacket.

9405 Heavy duty, 8 wire. Over 100 ft. runs. Six #18 and two #16 AWG tinned copper conductors. PVC insulation and PVC jacket.

8484 Standard duty, 4 wire. Four #20 AWG tinned copper conductors. PVC insulation and PVC jacket.

See Belden in the Price Guide

PREASSEMBLED COAXIAL HOOK-UP CABLES (INSTALLED)

9354 50' RG-8/U low-loss foam, PL-259s **54.99**
9355 75' RG-8/U low-loss foam, PL-259s **79.99**
9356 100' RG-8/U low-loss foam, PL-259s .. **94.99**

ANTENNA & GROUND WIRE

8000 #14 AWG (7x22) stranded bare copper-covered steel antenna wire.
8018 #8 AWG (solid) soft annealed aluminum ground wire – multiples of 50 ft.

Connecting you to the World

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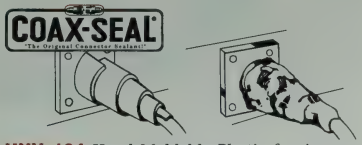
FLAT GROUNDING BRAID

Flat, flexible, and tinned for easy soldering. 1" size primarily used for grounding tower legs to ground rods or central point in a shack. From the central point, use 1/2" size to all equipment separately for best protection.

2332 1/2", 10 gauge, rated at 53A ..... per ft. **59¢**
2332 100 100 foot roll of above..... **$52.99**
235 1", 7 gauge, rated at 85 amps..... per ft. **99¢**
235 100 100 foot roll of above **$92.99**



UNV 104 Hand Moldable Plastic for Antenna Component Protection The quick and effective way to seal and protect all types of coaxial fittings, baluns, antenna parts and connectors. Simply wrap it on like regular tape, then mold it to any shape. It adheres tightly to metal, vinyl and polyvinyl coax outer jackets. Stays flexible and sealed at any temperature for years to resist moisture penetration and deterioration. Its permanent flexibility makes it possible to remove and re-install fittings, then re-seal just by reforming the same material. Non toxic and non-contaminating roll, 1/2"w x 60"... **$3.99**

CROSS Cross Devices

STUF Dielectric Water-proof Connector Filler Seals out moisture. High purity macroscopic foam that dielectrically simulates the coaxial cable core. Fill coax connectors and tighten. The filler material hydraulically channels into all connector voids and points of moisture entry. Non-hardening, easy to remove. No silicones, or other additives to harm coax cable material ..... (tube) **$4.99**

MFJ MFJ ENTERPRISES, INC.

341S (SO-239)/**341M** (NMO) **Permanent Mobile Hard Mounts**
Top quality antenna mounts with 14' of RG-58A/U coaxial cable & PL-259 connector attached. Easily snakes around a vehicle to the best operating position. Perfect for MFJ *RuffRider*™ or other brands of mobile VHF/UHF antennas..... ea. **$19.99**

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Look For This NEW & Check Out AES' Latest Additions.

PENETROX™

PENETROX® A Recommended for use on aluminum-to-aluminum and aluminum-to-copper connectors, on bare conductors, and bus bars. Good for all voltages. Assures a high conductivity joint by sealing out air and moisture to prevent corrosion and reformation of oxide film. Apply to mating pieces of antenna components, tubing, etc. during assembly to provide a non-corrosive, low resistance and air tight seal. Makes later disassembly a breeze..... (4oz bottle) **$12.99**

See Price Guide for Cable X-perts pricing.

ROTARY COAX CABLE STRIPPERS

For quick, clean prep of coaxial cable without damage. Insert coax, turn clockwise 4 or 5 times.

24-7735P for RG-58, RG-59, RG-62 ..... **$21.99**
24-7736P for RG-6, RG-59, 8281 ..... **21.99**
24-7739P for RG-8, RG-11, RG-213 ..... **28.99**

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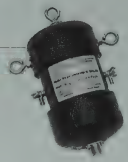
CENTAUR ELECTRONICS

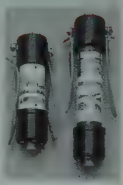


High Performance Baluns • State-of-the Art • 0.5 to 50MHz performance with advanced toroid transformer • 3KW SSB rated • Extended performance in hostile environments • Stainless steel hardware • Heavy-duty body materials • Military grade internal components • Dimensions: 3"dia. x 7"

B11W10-50 1:1, dipole **$54.99**
B11Y10-50 1:1, yagi **54.99**
B41Y10-50 4:1, yagi **69.99**
B41LW10-50 4:1, ladderline to coax **69.99**

UNADILLA

W2AU FERRITE BALUNS



These baluns replaces center insulator and provide a smooth transition from unbalanced coaxial transmission lines to balanced antennas; dipoles, quads and yagis. Produces proper current distribution resulting in reduced feedline radiation for maximum power transfer, gain and reduced TVI/BCI. DC grounded for lighting protection, center eye hook for support. Usable from 1.8-40MHz, 2KW PEP, So-239 connector..

W2AU 1:1 1.1, 1.8-40MHz ferrite **$24.99**
W2AU 4:1 1.1, 1.8-40MHz ferrite **24.99**
W2AU BEAM 1.1, Beam balun **24.99**

W2DU NON-TRANSFORMER CHOKE BALUNS

High efficiency, *transformerless* 1:1 baluns. The HF model is the only one available that works on 160 meters! They all handle a VSWR up to 5:1 at the legal power limit, allowing use with antenna tuners. The VHF model eliminates the usual rod and tube hardware balun assembly normally used at those frequencies.

W2DU-HF 1:1, 1.8-30MHz choke **$26.99**
W2DU-VHF 1:1, 30-250MHz choke **26.99**
W2DU BEAM 1:1, 40-10m choke **26.99**

Van Gorden Engineering

BALUNS & INSULATORS

Hi-Q 1:1 or **Hi-Q 4:1 Baluns**
For dipoles, yagis, inverted vees and doublets. Provides 1:1 or 4:1 impedance ratio for matching unbalanced coaxial cable to balanced antennas. Covers 3–40MHz with a 1.5KW rating. Reduces feedline radiation for more power into antenna, and reduced TVI/BCI problems. Built-in DC ground reduces static noise and provides some lightning protecton. Convenient SO-239 connector and center support eye hook; weatherproof ea. **$14.99**

ANTENNA CENTE Hi-Q Antenna Center Insulator
Insulator only, no balun. Replaces egg-type center insulator. Small, rugged, lightweight, weatherproof, SO-239 connector, center supporting eye hook **$6.99**

ANTENNA END IN End insulators . pair **$4.99**
DOG BONE Antenna insulators ..... each **99¢**

LADDER LINE

450 OHM 100 18 ga. 100' insulated **$14.99**
450 OHM 14 100 14 ga. 100' insulated.. **29.99**
450 OHM 1000 18 ga. 1000' insulated . **109.99**
450 OHM 14 1000 14 ga. 1000' insul.. **229.99**

WHITE NYLON ROPE

NR-100 100' roll, antenna guy rope **$4.99**
NR-1000 1000' roll, antenna guy rope **44.99**

N CONNECTOR

N CONNECTOR Male connector for Belden 9913 and 8214 coax **$4.99**

PREASSEMBLED COAXIAL HOOK-UPS

8X-1.5ST 1.5' RG-8X, silver-tef. PL-259s .. **$7.99**
8X-3ST 3' RG-8X w/silver-teflon PL-259s **8.99**
8X-6ST 6' RG-8X w/silver-teflon PL-259s . **10.99**
8X-12ST 12' RG-8X, silver-teflon PL-259s **11.99**
8X-25ST 25' RG-8X, silver-teflon PL-259s **15.99**
8X-50ST 50' RG-8X, silver-teflon PL-259s **24.99**
8X-75ST 75' RG-8X, silver-teflon PL-259s **31.99**
8X-100ST 100' RG-8X, silver-tef. PL-259s **37.99**
213-25ST 25' RG-213, silver-tef. PL-259s . **25.99**
213-50ST 50' RG-213, silver-tef. PL-259s . **38.99**
213-75ST 75' RG-213, silver-tef. PL-259s . **54.99**
213-100ST 100' RG-213, sil.-tef. PL-259 .. **72.99**

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VECTRONICS

ANTENNA TUNERS

VC-300M Mobile Tuner Compact and lightweight for base or mobile use. Tunes verticals, dipoles, inverted Vs, beams and mobile whips fed by coaxial cable. Covers 1.8–30MHz at 300W continuous power. The dual-movement cross-needle meter simultaneously monitors RF power output and SWR. 7.25"w x 3.5"h x 8.75"d, 2.5 lbs **$99.99**

VC-300DLP Antenna Tuner A quality, economical tuner. Covers 1.8–30MHz at 300W continuous power capability from 3.5–30MHz and 150W on 1.8 MHz. Built-in dummy load, dual-movement cross-needle peak or average reading meter. Compatible with most antennas – coax-fed, balanced or single wire. Built-in 4:1 balun and 6-position antenna switch. 10.25"w x 9.5"d x 3.5"h, 3.5 lbs.. **$149.99**

VC-300D Antenna Tuner Same functions and specifications as the VC-300DLP above, but has the additional capability to show a peak power indication by using an instantaneous responding digital bargraph meter display. A level and delay control has been added to calibrate the display to the meter, and to vary the delay response..... **$179.99**

HFT-1500 Antenna Tuner Rated for 1500W from 1.8–30MHz; 1000W (2KW PEP) on 160 and 10M. Features a cranked continuous roller inductor with a numerical turns counter and vernier tuning on the antenna and input capacitors. The dual-movement cross-needle meter shows average forward and reverse power and SWR while a 21-segment bargraph indicates the peak power. A true RF directional coupler sensor is used for the wattmeter circuitry. Includes a built-in 4:1 balun for balanced antenna systems and six-position antenna selector switch. 5.5"h x 12.5"w x 12"d, 10 lbs..... **$399.99**

We accept I.M.P.A.C.® Government Credit Cards

MFJ

MFJ ENTERPRISES, INC.

ANTENNA TUNERS

922 VHF/UHF Dual Band Antenna Tuner Great for HTs, mobiles or amps up to 150W. Using the included tool, adjust your antenna system for a low SWR on VHF, 136–175MHz and UHF, 420–460MHz. Meter reads both SWR and power in 60/150W ranges. 4" x 2" x 1.25"- carry it in your car, while camping, etc..... **$79.99**

945E Mobile Tuner Covers 1.8–30MHz plus 6M, and rated at 300W PEP. Matches coaxial cable only. Extends mobile antenna bandwidth and eliminates having to stop and adjust the whip length when making frequency changes. Lighted cross-needle SWR bridge and power meter with 50/300 and 5/30W ranges. 8"w x 2"h x 6"d **$99.99**

941E Versa Tuner II Covers 1.8–30MHz and rated at 300W PEP. *Matches everything!* – coaxial fed dipoles, vees, whips, verticals, beams, random wires and balanced lines, has a built-in 4:1 balun. Lighted cross-needle SWR/power meter with 300/50W and 30/5W ranges. Convenient 8-position antenna selector for 2 coax lines, random wire or balanced line or an external dummy load. 10.625"w x 2.875"h x 7"d **$109.99**

934 Antenna Tuner/Artificial Ground Makes a random wire an effective antenna. Combines the best features of MFJ's 941E and 931 into one unit. A full-featured 1.8–30MHz, 300W antenna tuner with cross-needle meter and ground matching knob that lets you switch in inductance to bring an attached radom length wire to a low impedance current point, forming an artificial ground. 10.625"w x 3.5"h x 7"d..... **$169.99**

948 All the features of the 941E without the dummy load. Has larger lighted peak reading cross-needle SWR/power meter..... **$119.99**

949E Deluxe Versa Tuner II Same power, tuning and switching capability as the 941E with a larger, lighted peak or average reading cross-needle SWR/wattmeter. *PreTune*™ allows off-air tune-up into a built-in 50Ω dummy load. 10.625"w x 2.875"h x 7"d. **$139.99**

969 Deluxe Versa Tuner II Covers 6–160M and rated at 300W. Features a roller inductor coil with a spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 30/300W ranges. Tunes coaxial cable, random wire or balanced feedline, has a built-in 4:1 balun. QRM-Free *PreTune*™ allows off-air tune-up into a built-in 50Ω 300W dummy load. Convenient 8-position antenna selector switch. 10.5"w x 3.875"h x 9.5"d..... **$189.99**

962D Versa Tuner III Covers 1.8–30MHz and rated at 1.5KW PEP. Matches coaxial fed antennas, random or balanced line. Has a built-in 4:1 balun. Lighted peak/average cross-needle SWR/wattmeter with 200/2000W ranges. 6-position selector for 2 coax lines (direct or thru), random and balanced lines. 10.5"w x 3.875"h x 15"d.....**$249.99**

986 Differential-T Tuner™ Covers 1.8–30MHz , rated at 3KW PEP. Uses a broadband T-network with roller inductor and differential capacitor. Tunes most antennas using only two knobs. Lighted peak or average reading cross-needle SWR/wattmeter with 200/50W and 2000/500W ranges. Inductor spinner knob, 3-digit turns counter, 6-position antenna selector, external dummy load switch, 4:1 balun. 10.75"w x 4.5"h x 15"d..... **$299.99**

989C Versa Tuner V Covers 1.8–30MHz and rated at 3KW PEP. Super duty components. Matches nearly every type of antenna. Roller inductor with spinner knob and 3-digit turns counter. Lighted peak/average reading cross-needle SWR/wattmeter with 200/2000W ranges. Built-in 50Ω 300W dummy load, 3KW 4:1 balun and 6-position antenna selector switch. 10.75"w x 4.5"h x 15"d..... **$319.99**

Palomar Engineers

PT-340 Tuner-Tuner Eliminate QRM, overheated final tubes and devices by adjusting the station antenna tuner without transmitting. Installs permanently between rig and antenna tuner. Just turn it on, and listen to the noise output in your receiver, then adjust your station tuner controls for a dip in the noise (a null). Covers 1.7–30MHz. Uses 9V battery. 6"w x 5"h x 3"d..... **$99.99**

WA1FFL

Ladder-Loc® Center Insulator & Support Provides a convenient means of attaching 450Ω ladderline to various dipole antennas. This sturdy support minimizes feedline flexing at the antenna feedpoint and ensures a long lasting, trouble-free installation. A top attachment point is provided for attaching a center support rope. UV stabilized for long life..... **$12.99**

LDG ELECTRONICS

Z-11 QRP Automatic Antenna Tuner Perfect for QRP radios. Designed with regard to reducing size and power consumption. A high-efficiency, microprocessor controlled, switched "L" network designed to work with dipoles, verticals, vees, beams or other coax-fed antennas. • 1.8-30 MHz coverage. Latching relays allow the Z-11 to be powered off once tuned. • 0.1 to 30 watts continuous (60 watts peak) • Tunes 6 to 800 Ohm loads • Tuning time: 0.1 to 3 seconds (1.5 average) • Optional Yaesu FT-817 Interface • Requires 11-18 VDC @ 10-190mA (75mA average) • 5" x 6.5" x 1.3", 15 oz.....**$169.99**

RT-11 Remote Mounting Automatic Antenna Tuner The best choice for mobile, marine, and remote applications. Contained in a weather resistant ABS Plastic enclosure with flanges for easy mounting. Latching relays hold last tuned position, even if power is removed. • 1.8-54 MHz • 0.1 to 125 watts • Tuning time: 0.1 to 3 seconds (1.5 average) • Optional interfaces available for Icom, Alinco, Yaesu FT-100/897 and Kenwood TS-50 • Tunes coax-fed antennas, optional Balun for wire antennas. • Requires 11 - 18 VDC @ 10-200mA (75mA average) • 8.5" x 5.5" x 3", 2.5 lbs.....**$199.99**

AT-11MP Desktop Automatic Antenna Tuner The World's most popular Desktop Autotuner! Switched "L" network tuning for unparalled tuning ranges. Lite cross-needle meter displays forward / reflected power and SWR. Tunes coax-fed antennas (in most cases) to 1.5:1 or less. • 5 to 150 watts continuous • 1.8 to 30 MHz continuous coverage • Optional interfaces available for Icom, Alinco, Yaesu FT-100/897 and Kenwood TS-50 • Optional Balun for tuning wire antennas • Requires 11 - 18 VDC @ 15-500mA (250mA average) • 9.5" x 8.25" x 2.5", 4 lbs.....**$219.99**

AMERITRON

ATR-30 True Legal Limit™ Antenna Tuner Covers 1.8–30MHz, including all MARS and WARC bands. Designed for sustained RF output of over 1500W CW and 3000W SSB, also 160m. Uses High-Q, high-current, edge-wound arc-free roller inductor with super heavy-duty 500pf capacitor in T-match network. Matches nearly any type of antenna using either coax or balanced feedlines. Cross-needle, peak-reading SWR/wattmeter with 3000/300W ranges measures peak or average forward/reflected power plus VSWR, illum. Includes 3-core choke balun, 6-position antenna switch and 6:1 vernier reduction drives, turns counter. Optional external 12 VDC or internal 9V required **$549.99**

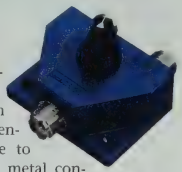
ICOM

AH-2B Antenna Element Provides 7 through 50MHz mobile operation when used with the AH-4 antenna tuner. Includes hardware for mounting to a tow bar, 8.2 ft. antenna. **$299.99**

AH-4 Automatic Antenna Tuner *Fully automatic* – covers all amateur bands from 3.5MHz–54MHz with a 23' or longer wire antenna, or 7–54MHz with optional AH-2B antenna element. Compact yet durable, it measures 6.7"w x 2.7"h x 9"d for easy installation in a variety of locations. Weather-resistant construction, using rubber gasket seals, enables operation in all conditions. Handles 120W PEP, requires only 5–15W for tuning. Designed for use with Icom HF transceivers. Just push the [TUNER] switch and the AH-4 auto adjusts to the minimum SWR in less than 2.5 seconds. Up to 45 memories store settings to provide 1-second retuning. Supplied with mounting kit, 16' control and coaxial cables, PL-259s. Requires 13.8 VDC..... **$269.99**

DAIWA

industry co. ltd.



CS-201 2-Position Coaxial Switch A high quality coaxial switch with excellent high frequency RF characteristics due to cavity and heavy diecast metal construction. Frequency range up to 600MHz with less than 0.12 VSWR, less than 0.2dB insertion loss and 60dB isolation between terminals. Rated at 2.5 KW PEP or 1KW CW. Auto grounding of unused terminals, SO-239 connectors..... **$26.99**

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MFJ

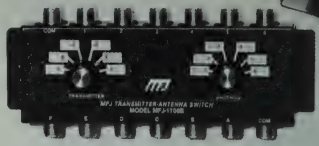
MFJ ENTERPRISES, INC.

ANTENNA MOUNTS

310 HT Antenna Window Mount Clip Your HT rubber duck antenna radiates poorly inside your car due to the shielding effect of the roof, doors, etc. Detach the duck from your HT and install on this handy BNC window mount clip. It holds your antenna securely on the outside of your car's window where it can radiate freely. Quick and easy to install and remove. Comes with 10' of flexible mini-coaxial cable **$14.99**

340 Mirror or Luggage Mount For mounting VHF/UHF and medium-size HF antennas on mirror, luggage rack or spare tire carrier of truck, van, RV or SUV **$34.99**

345 Trunk/Hatchback Lip Mount Mounts on any lip on you vehicle. An extra-wide 4-inch lip and large reinforcing tabs on each side safely distributes the load. Mounts at any angle and allows at any desired angle **$34.99**



COAXIAL SWITCHES

1700B Antenna and Transceiver Switch Select up to 6 antennas and 6 rigs in any combination. Leave in line to operate with any combination 50 or 75Ω. Handles 2kW PEP or 1kW CW from 1.8–30 MHz. Unused positions are auto grounded for lightning protection. 10"w x 3"h x 1.5"d **$79.99**

1701 Antenna Switch Six positions, for 50-75Ω systems. Rated for 2KW PEP or 1KW CW from 1.8–30MHz. Unused positions are grounded for lightning protection. 10"w x 3"h x 1.5"d... **$49.99**

1702C Antenna Switch 2 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP or 1kW CW. >60dB isolation @ 300MHz or >50dB @ 450MHz. Unused terminal auto grounds for lightning protection..... **$24.99**

1702CN Lowest loss on UHF. Uses Type N connectors which are good up to 1.1GHz **$34.99**

1704 Antenna Switch 4 positions + center ground. 50Ω, rated to 500MHz with <0.2dB loss, 2.5kW PEP, 1kW CW, >50 dB isolation @ 500MHz. Includes replaceable lightning protection..... **$64.99**

1704N with Type N's..... **$74.99**

AES
Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

AMERITRON

REMOTE CONTROLLED ANTENNA SWITCHES

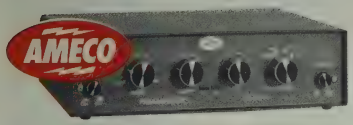
RCS-4 Select up to 4 different HF antennas by supplying control voltages thru the coax without the need for a separate control line. The weatherproof switch box can be tower, mast or wall mounted. Uses three heavy duty 10A contact relays on a fiberglass circuit board 5.25"d x 7"w x 3"h. Safe, 14 VDC control. The indoor control console locates at the operating position. 6"d x 6"w x 2.5"h. 120VAC. Rated 1.8–30MHz, 2KW **$129.99**

RCS-8V Independently or simultaneously select up to 5 different antennas using one coaxial feedline and 8-wire control cable. Internal wiring allows grounding or floating unused terminals as required. Rated at 5KW below 30MHz, and 1KW up to 150MHz **$139.99**

RCS-8VN Same as RCS-8V but with N-type female connectors **$149.99**

RCS-10 Select up to eight HF antennas using one feed line and a single four conductor control line (not supplied). Long life sealed relays with 16A current rating. Up to 100MHz with low VSWR. Over 5KW below 30MHz (matched) **$149.99**

AMECO



PT-3 Preamplifier Covers 2-54MHz and useable with either a receiver or transceiver. A tunable low noise dual-gate FET circuit provides >20dB gain, low N.F. and improved spurious and image rejection. An RF sensed switch with variable delay automatically bypasses to antenna on transmit. Second receiver or antenna capability. 12V DC, or use P-12T AC adapter ($9.99). 2.5"h x 8.75"w x 6.5"d... **$124.99**

TPA Tunable Preamp/Active Antenna Use as a preamplifier to improve receiver gain, or as an indoor active antenna. Covers 0.22 –30MHz in 5 bands. A dual-gate FET device provides an excellent N.F. and >20 dB gain. As a preamplifier, the input matches most antennas; long wire, 300Ω and random lengths. When no external antenna is available, the preamplifier's built-in 30 in. collapsible whip gives great results. Uses 9V battery or P-9T AC adapter ($9.99). 1.5"h x 8"w x 6.5"d..... **$76.99**

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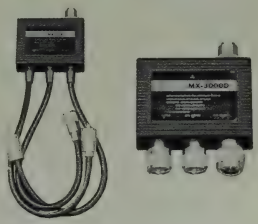
DUPLEXERS

Type	SO239 PL259/PL259	SO239 PL259/Nmale	SO239 SO239/SO239	SO239 PL259/PL259	SO239 PL259/Nmale	Nfemale PL259/Nmale	PL259 SO239/SO239
Leads	No	No	No	Yes	Yes	No	Yes
2m/440	Comet CF4160K Diamond MX72D MFJ 916	Comet CF4160I	Comet CF4160J Valor D270	Comet CF416A Comet CF530 Diamond MX72H	Comet CF416B Diamond MX72N Yaesu AD3	Comet CF416C Comet CF416W	
2m/220	Diamond MX214D			Comet CF142			
HF/6 to 440				Comet CF360A			Comet CF360B
HF to 6/2m				Comet CF706A Diamond MX62M			

TRIPLEXERS

Type	Leads	HF/6/2/440/1200	HF/6/2/440	2/220/440
Nfemale PL259/PL259/Nmale	No	Comet CFX4310C		
SO239 PL259/PL259/PL259	Yes	Diamond MX2000	Comet CFX514	Comet CFX324A Diamond MX324
SO239 PL259/PL259/PL259	No		Comet CFX5140	Comet CFX324B Diamond MX324D
Nfemale PL259/PL259/Nmale	Yes	Diamond MX3000		
SO239 PL259/PL259/Nmale	Yes		Comet CFX514N	
SO239 SO239/SO239/SO239	No		Comet CFX514J	



For duplexer/triplexer prices, see the Price Guide under each respective manufacturer.

NEW ANTENEX

MOUNTS

MB8PST Permanent Brass Hole Mount (NMO) Quality brass alloy, silver-soldered ground lug. Mounts in 3/4" hole. Comes with 17' RG-58A/U stranded cable, Teflon® PL-259 connector . **$15.99**

GB8PSTI NMO Magnetic Mount For temporary vehicle installs. Strong (90 lbs. pull), protective mylar sole prevents scratches. With 12' RG-58A/U cable and Teflon® PL-259 connector **$29.99**

LBMB9034 "L" Bracket for Mirror Mount Strong, extruded aluminum. Accepts various 3/4" hole mounts. Black (plain pictured)..... **$10.99**

DC SALES

TENNA HITCH A heat treated, high strength aluminum bracket with insulated 3/8" x 24 mounting stud. Installs under the ball of any Class-I or II hitch. Handles the largest mobile antennas, and does not interfere with trailer towing capability. No holes to drill. All hardware is supplied **$38.99**

MFJ

LIGHTNING PROTECTION

931 Artificial Ground Unit Eliminates problems caused by inadequate grounding when using random length wire antennas. It resonates an additional length of wire to act as a tuned counterpoise. It results in easier tuning, improved efficiency, a better radiation pattern and reduced TVI/RFI. Covers 1.8 to 30MHz, RF ammeter tuning indicator. 7.5"w x 3.5"h x 7"d. *Not for coax fed antennas* **$89.99**

270 Lightning Surge Protector Safeguard ham gear from damage due to static charges & lightning induced surges. Replaceable ultra-fast gas discharge tube safely shunts up to 5000 amps of peak impulse current to an independent ground. Rated to 400W PEP, usable up to 1000MHz..... **$29.99**

Kleinhuis

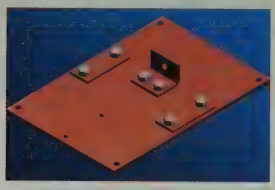
North America, Inc.

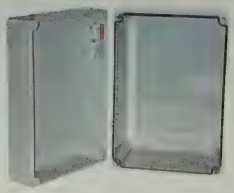
1309 Isolated Ground Bar Perfect for grounding data patch panel racks and marine applications. Provides additional panel, sub-panel or control panel grounding. Lay-in style. Adapts easily for design/build applications, mounts to back panel or wall surface. Corrosion resistant, nickel-plated, copper clamping rail. Includes locking protective hinged cover. UL listed, CSA approved. 600V maximum. Accepts 8 to 12 (AWG) stranded or solid copper wire 7.5"w x 1.75"h **$14.99**

GROUNDING ACCESSORIES

GBIS18114AE 1/8" Copper Entrance Ground Bar Kit Installs at shack entrance, making a short connection to the ground system. Holds up to five PolyPhaser IS-50-type lightning protectors. Insulated stand-off brackets allow attaching and insulating of ground bar from mounting surface. Two HD terminal lugs and hardware included. Attach grounding wires from 1/0 stranded to #6 solid..... **$27.99**

GEL3AE Pkg. of 5 HD terminal lugs **$15.99**





GP1868.78AE 1/8 in. Copper Single Point Ground Panel Kit Provides single-point grounding for two transceiver lines and rotor control cable. Installs at tower base or on outside wall. Sized to fit inside a NEMA-4X style box for weather proofing. Tapped holes and hardware provided for mounting a PolyPhaser IC-RCT rotor control protector and up to two IS-50 series coaxial protectors. Sandwich plates and hardware included **$54.99**

GBX976AE NEMA 4X Waterproof Enclosure *(right)* Accepts GP1868.78AE ground panel **$89.99**

GBIS18148AE 1/8" Copper Station Ground Bar Kit Installs at back of operating desk. Grounds individual components to a common point preventing multiple ground paths and daisy-chains. Accepts a heavy ground conductor to be routed to station ground or entrance ground bar. Includes two heavy 12 in. straps for equipment and two light duty 1/4 in. straps for accessories, plus an extra 1/4" strap and lugs for added assemblies **$64.99**

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PolyPhaser® CORPORATION

The primary rule for protecting ham radio equipment against lightning damage is connection of all elements to a single, low impedance, ground system within the hamshack. This includes antenna, antenna support (pole, tower, etc.), and all station protectors (antenna, power, telephone, rotor, etc.).

BROADBAND COAXIAL PROTECTORS

Hermetically-sealed gas tubes and additional components assuring surge voltages and currents that are formed diffentially on coaxial cable are prevented from being shared by valuable equipment. DC blocked for maximum protection. • Low loss • Multi-strike capability with low strike throughput energy • Aluminum enclosure • Wide frequency range, low VSWR • Works on all equipment • Silver-center, TFE, UHF connectors • Silver shell and gold pin Type-N

Flange Mount *(left)*

IS-50UX-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$61.99**

IS-50UX-C1 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$61.99**

IS-50NX-C2 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn **$61.99**

Bulkhead Mount *(middle)*

IS-B50LU-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • UHF connector..... **$64.99**

IS-B50LU-C1 50–700MHz • VHF 375W, UHF 125W • UHF connector..... **$64.99**

IS-B50LN-C2 125–1000MHz • VHF 375W, UHF 125W/50W (low/high) • Type-N conn **$64.99**

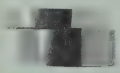
Isolated Port Bulkhead Mounts *(right)*

DC block for the center conductor and blocks the shield's surge energy from the equipment chassis.

IS-IE50LN-C1 50–700MHz • VHF 375W, UHF 125W • Type-N connector..... **$117.99**

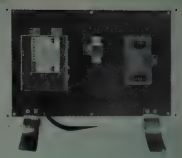
IS-IE50LU-C0 1.5–400MHz • HF 2kW, VHF 375W, UHF 125W • Type-N connector ... **$129.99**

LOW INDUCTANCE COPPER STRAP



A larger surface area and lower inductance gives strap a huge advantage over wire for RF grounding and lightning protection. Cannot be fused open by lightning. Usable above or in-ground, #26 AWG thickness. Available in 1.5" or 3" widths and 25', 50', 75' or 100' rolls. See Price Guide for details.

GROUNDING PANEL



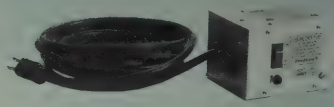
CU-SPGP A heavy 0.062" copper plate mounted on 1/2" plywood. For mounting protectors and establishing the important single grounding point for all station equipment. Comes with concrete anchors, mounting screws, two rolls of 10' x 1.5" copper grounding strap and 2 copper, 18"w x 12"h, sandwich bars, 16" on-center mount..... **$69.99**

ROTOR CONTROL PROTECTOR

IS-RCT *(left)* 8-wire protection for rotor control box and other nearby equipment. Water tight with mounting stud **$54.99**

IN-LINE PHONE LINE PROTECTOR

IS-SPTL *(right)* Multi-stage protection for telephone trunk lines. Handles ring voltages up to 105V, surges up to 36kA **$57.99**



POWER LINE EXTENSION PROTECTOR

In-line, multi-stage protectors provide multi-strike line protection, filtering and proper grounding for a 120V AC line. 2 grounded outlets, power switch, and circuit breaker. All aluminum grounded enclosure, 4.75" wide.

IS-PLDO-120-15A 15', 120V/15A **$172.99**

IS-PLDO-120-20A 6' cord, 120V/20A. **$215.99**

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MILWAUKEE, WISCONSIN 53223
(414) 358-0333

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VALUED AT _____ DOLLARS $_____

PRESENTED BY _____

AUTHORIZED SIGNATURE

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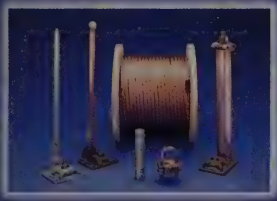
HARGER®

Lightning Protection • Grounding • Exothermic



Harger Lightning & Grounding

Web-site: www.harger.com

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SP® Certified

FULL BODY CLIMBING HARNESSES

Personal Fall Safety Systems The basic component of any personal fall protection system is a full body harness designed to permit the wearer freedom of movement as well as providing sufficient strength to arrest the most severe fall safely. Technology now allows us to design and manufacture a full body harness that is extremely strong, yet so lightweight, comfortable, and easy to adjust that the wearer is barely aware of the unit. Glen Martin Engineering offers a complete line of full body harnesses, which continue to include the latest innovations. Sizes: (Measurements include clothing, and are measured at the naval) XS 28"-36", S 32"-40", M 36"-44", L 40"-48", XL 44"-52"

SkyClimber™ *(left)* full body harnesses are designed with a chest-high front D-ring for fixed climbing. The harness is made of polyester, and is uniquely designed for easy on and off assembly. The harness offers complete fall arrest, fall prevention, and tower climbing safety. Two D-ring harnesses offer a sliding D-ring at the center of back, and chest-high front D-ring. The four D-ring harnesses are built with a sliding D-ring at center of back, chest-high front D-ring, and D-ring on each hip.

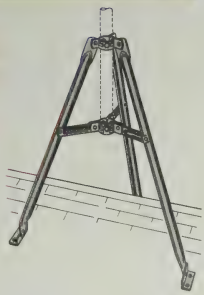
FP-5600 Two D-ring, 2.7 lbs., S-M **$81.99**
FP-5601 Two D-ring, 2.8 lbs., L-XL **81.99**
FP-5602 Four D-ring, 3.0 lbs., S-M **99.99**
FP-5603 Four D-ring, 3.2 lbs., L-XL..... **99.99**

StarClimber™ *(right)* six D-ring premium tower saddle harnesses are designed for maximum comfort, safety and worker productivity. Each features padded seat strap, padded shoulder straps, and removable tool belt. Enjoy the security and peace-of-mind that quality fall protection can provide. Each also offers sliding D-ring at center of back, chest-high front D-ring, D-ring on each hip, D-ring on each end of seat strap, black 1.75" nylon tongue buckle leg strap, red 1.75" polyester shoulder straps, two accessory rings attached to center-back of 5" padded backpad and seatstrap, and carry-all bag.

FP-6600 5.0 lbs., extra small..... **$272.99**
FP-6601 5.1 lbs., small..... **260.99**
FP-6602 5.2 lbs., medium..... **260.99**
FP-6603 5.3 lbs., large **260.99**
FP-6604 5.4 lbs., extra large **272.99**

See Price Guide for a full line of lanyards and towers. All Glen Martin products are Drop Shipped.

EASY-UP
ANTENNA TRIPODS
UPS SHIPPABLE



The use of a self-supporting antenna mount makes a neat and attractive installation without guy wires. EZ-Ups are Heavy-Duty and Self-supporting – made out of 1-1/4 in. tubular steel with triple corrsion protection inside and out. Double embossed collars with six locking screws hold masts up to 1-3/4 in. Fast, one-person installation, the legs extend to any rafter spacing. Shipped completely assembled and includes a pitch pad kit and lag screws.

EZ 48-3ABX *(right)* 3 ft. high, 8.5 lbs..... **$24.99**
EZ 48-5ABX *(right)* 5 ft. high, 12 lbs..... **$34.99**
EZ 5-16 5' 16 ga. steel mast (Pick-up only) **$7.99**
EZ 29-24S Heavy-duty Double-strap Chimney Mount *(left)* Mount includes two "Y" type mounts and 24' of stainless steel strap **$17.99**

MasterCard VISA DISCOVER NOVUS Cards

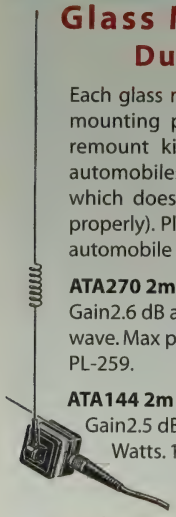
ATOC Technologies

ANTENNAS & MOUNTS

VHF / UHF Antennas

Glass Mounted Antennas
Dual Band and VHF

Each glass mount antenna includes instructions and mounting package. Replacement whips, base and remount kits are available. (NOTES: Some newer automobiles are equipped with "passivated glass" which does not permit on-glass antennas to work properly). Please check your owner's manual or your automobile dealer.

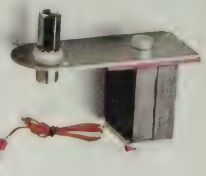


ATA270 2m / 440 MHz Antenna
Gain2.6 dB at 2m and 4.0 dB at 440 MHz over 1/4 wave. Max power 50 Watts. 14' RG-58 cable with PL-259.

ATA144 2m Antenna
Gain2.5 dB at 2m over 1/4 wave. Max power 50 Watts. 14' RG-58 cable with PL-259.

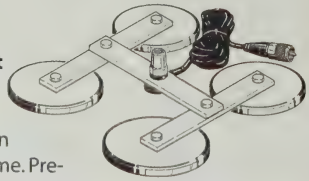
Stake Truck Bed & Magnetic Mounts from Iron Horse

Designed for the serious amateur on-the-go, these heavy-duty stainless steel mounts feature an expandable rubber base that locks mount when tightened for secure fit. Great for HF sticks and 102" stainless steel whip antennas. Both fit most pickup truck brands and models



IHSB-2
locates the antenna on either side of the bed rail.

IHSB-4
locates the antenna directly over the truck bed rail.



IH4501 & IH4501-SO
Quadruple Magnet Mount
4 x 5" MuleHorse Magnetic Mount Kit features four 5" magnets properly spaced on a heavy duty aluminum frame. Pre-wired with 17' RG-58 and PL-259. Triple chrome plated.
IH4501 accepts 3/8" x 24 thread antennas.
IH4501-SO accepts SO - 239 antennas.

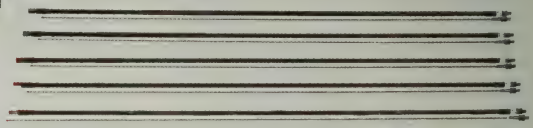
HF Antennas

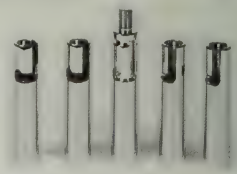
Iron Horse Series

Enjoy great HF mobile performance with these rugged, easily tuned mono-band antennas. Made in the USA, Iron horse antennas are designed for maximum efficiency, low SWR and broad bandwidth. Each has 3/8 x 24 threads and is rated for 500 watts. Order the IHKD3S five antenna quick disconnect mounting kit to make changing bands a quick and easy operation. Just push, turn, and go!

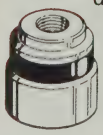
MODEL	DESCRIPTION	BANDWIDTH (KHz)
IHF75	75 m HF Stick	36
IHF40	40 m HF Stick	60
IHF30	30 m HF Stick	50
IHF20	20 m HF Stick	150
IHF17	17 m HF Stick	175
IHF15	15 m HF Stick	200
IHF12	12 m HF Stick	300
IHF10	10 m HF Stick	500
IHF6	6 m HF Stick	1000

Model IHF5S is a set of five HF antennas all in one vinyl bag. The set includes 10 - 15 - 20 - 40 - 75 m antennas.



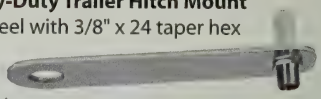


Model IHKD3S
is a five pack quick disconnect mount kit.



Model AN38
is an adaptor for NMO to a 3/8" x 24 thread antenna.

IHTH-1 Heavy-Duty Trailer Hitch Mount
All stainless steel with 3/8" x 24 taper hex w/ chrome-plated brass SO239 connector.



Full line of accessories in Price Guide, including: Tower Motor Drives 5 ft. to 20 ft. Antenna Masts • 20 ft. Chromolly Masts • Thrust Bearings • Mast Raising Fixtures • Rotating bases • Coax support arms • Limit Switch Packages

MA SERIES CRANK-UP TUBULAR TOWERS

handle 10 sq. ft. antennas at 50mph winds

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
MA-40	40'	21'6"	2	242	3"sq./4.5"	12"x12"x12"	$849.99
MA-550	55'	22'1"	3	435	3"sq./6"	18"x18"x18"	$1399.99
MA-550MDP*	55'	22'1"	3	620	3"sq./6"	3'x3'x5'	$2899.99
MA-770	70'	22'10"	4	645	3"sq./8"	3'x3'x6'	$2359.99
MA-770MDP*	70'	22'10"	4	880	3"sq./8"	3'x3'x5.5'	$3999.99
MA-850	85'	23'6"	5	943	3"sq./10"	4'x4'x6'	$3649.99
MA-850MDP*	85'	23'6"	5	1128	3"sq./10"	4'x4'x6'	$5391.99

*Complete with heavy-duty motor drive with positive pull down. **Standard bases and eave mounts included (except MA-770, 770MDP and 850MDP).

FREE STANDING CRANK-UP TOWERS

handle 18 sq. ft. antennas at 50mph winds

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
TX-438	38'	21'6"	2	355	12.5"/15"	3'x3'x5'	$999.99
TX-455	55'	21'6"	3	670	12.5"/18"	3'x3'x6'	$1599.99
TX-472	72'	22'8"	4	1040	12.5"/21.625"	4'x4'x7'	$2479.99
TX-472MDP*	72'	22'8"	4	1210	12.5"/21.625"	4'x4'x7'	$4549.99
TX-489MDPL**	89'	23'4"	5	1800	12.5"/25.625"	4'x4'x8.167'	$6439.99

*Includes heavy-duty motor drive with positive pull down.
**Comes with heavy-duty motor drive with dual level wind and positive pull down. Also includes fully operational limit switch package.

FREE STANDING HEAVY-DUTY CRANK-UP TOWERS

handle 30 sq. ft. antennas at 50mph winds**

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
HDX-538	38'	21'6"	2	600	15"/18"	3'x3'x6'	$1289.99
HDX-555	55'	22'	3	870	15"/21.625"	4'x4'x6'	$2399.99
HDX-572MDPL*	72'	22'8"	4	1600	15"/25.625"	4'x4'x8.167'	$5929.99
HDX-589MDPL*	89'	23'8"	5	2440	15"/30.625"	5'x5'x8.5'	$7729.99
HDX-689MDPL*	89'	23'8"	5	3450	18"/37.125"	5'x5'x9.5'	$15029.99
HDX-5106MDPL*	106'	24'8"	6	3700	15"/37.125"	5'x5'x9.5'	$16649.99

*Includes heavy-duty motor drive with dual level wind and positive pull down and fully operational limit switch package.
**HDX-689MDPL rated 60 sq. ft. and HDX-5106MDPL rated 35 sq. ft.

FREE STANDING "LOW-PROFILE" COMPACT CRANK-UP TOWERS

SS models handle 18 sq. ft. antennas, HD handles 24 sq. ft., at 50mph winds

Model	Height max.	Height min.	Sections	Weight (in lbs.)	Section OD top/bottom	Base	Price
TMM-433SS*	33'	11'4"	4	315	10"/18"	3'x3'x4'	$1219.99
TMM-433HD	33'	11'4"	4	400	12.5"/20.875"	3'x3'x5'	$1477.99
TMM-541SS	41'	12'	5	430	10"/20.875"	3'x3'x4.5'	$1599.99

*Includes heavy-duty motor drive with dual level wind and positive pull down and fully operational limit switch package
**HDX-689MDPL rated 60 sq. ft. and HDX-5106MDPL rated 35 sq. ft.

tilt-over base

* All towers are drop shipped direct from the factory. Shipment is FOB Visalia, CA via truck. Additional freight charges will apply. Ask for details.
** Any tower purchased with a MDP-750 or MDPL-1000 motor drive MUST be purchased with either the MCL-160 or the RMC-1000.
*** Full US Tower catalog available free, ask dealer for details.

hy-gain ROTATORS

. . . the first choice of hams around the world!

The HAM-IV

is the most popular rotator in the world! It is designed for medium communications arrays of up to 15 sq. ft. wind load area. Low temperature grease permits normal operation down to -30° F. New alloy ring gear gives extra strength up to 100,000 PSI for maximum reliability. The indicator potentiometer leads have ferrite beads to reduce RF susceptibility. For convenience a Cinch® plug connector is used at the rotor plus an 8-pin plug at the control box. Dual 98 ball bearing race for load bearing strength and electric locking steel wedge brake prevents wind induced antenna movement. North or South center meter scale. Maximum mast size: 2.063 in..... **$529.99**

Ham-IV Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 ft/lbs.**

The TAILTWISTER SERIES II

is designed for medium communications antenna arrays of up to 20 sq. ft. wind load area. Available with DCU-1 Pathfinder Digital control box (T-2XD) or standard Analog control box (T-2X). Low temperature grease, alloy ring gear, indicator potentiometer, ferrite beads on potentiometer wires, weatherproof AMP connectors plus 8-pin plug at the control box. Triple bearing race with 138 ball bearings for large load bearing strength, electric locking steel wedge brake, North or South center meter scale, low voltage control. Maximum mast size: 2.063 in. **T-2X** with analog control..... **$619.99**

T-2XD with DCU-1 control **$979.99**

TAILTWISTER Specifications

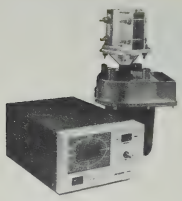
Wind Load cap.(inside tower)	20 square feet
Wind Load (w/ mast adapter)	**10 square feet**
Turning Power (in lbs.)	1000
Brake Power (in lbs.)	**9000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Triple race/138 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	28
Effective Moment (in tower)	**3400 ft/lbs.**

THE HAM-V

Designed for medium communications antenna arrays of up to 15 sq. ft. wind load area. Includes the innovative DCU-1 Pathfinder control unit. A strong 100,000 p.s.i alloy ring gear and a new indicator potentiometer have been added for improved reliability. For convenience, a Cinch® connector is used at the rotor and an 8-pin plug at the control box. Ferrite beads reduce RFI. Powder coated finish. Max. mast size: 2.063 in..... **$899.99**

HAM-V Specifications

Wind Load cap.(inside tower)	15 square feet
Wind Load (w/mast adapter)	**7.5 square feet**
Turning Power (in lbs.)	800
Brake Power (in lbs.)	**5000**
Brake Construction	Electric Wedge
Ball Bearing Assembly	**Dual race/96 bearings**
Mounting Hardware	Clamp plate/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	24
Effective Moment (in tower)	**2800 foot/lbs.**



The HDR-300A

is the best for king-sized antenna arrays up to 25 sq. ft. wind load. Machined steel output gear. Tough, hardened stainless steel output shaft with a long keyway for added reliability. North or South centered calibration, Ferrite beads are installed on the potentiometer wires to reduce RF susceptibility, Heavy-duty self-centering steel mast clamp and hardware. Digital heading display accurate to 1°. Mast size: 1.25"-3" .. **$1229.99**

HDR-300A Specifications

Wind Load capacity	25 square feet
Wind Load (w/mast adapter)	**N/A**
Turning Power (inch lbs.)	5000
Brake Power (inch lbs.)	**7500**
Brake Construction	Solenoid operated locking
Bearing Assembly	**Bronze sleeve w/rollers**
Mounting Hardware	Stainless steel bolts
Control Cable Conductors	**7** (Belden 8448 or 9405)
Shipping Weight (lbs.)	55
Effective Moment (in tower)	**5000 ft/lbs.**

The AR-40

is for large FM-TV and compact communication antenna arrays up to 3.0 sq. ft. wind load area. The dual 12 ball bearing race is exclusive in its class. Automatic position sensor never needs resetting. Fully automatic control, just dial and touch for any desired location. Solid state, low voltage control. Safe and silent operation. Maximum mast size: 2.063 in. Includes light duty lower mast support.... **$269.99**

AR-40 Specifications

Wind Load cap.(inside tower)	3.0 square feet
Wind Load (w/mast adapter)	**1.5 square feet**
Turning Power (inch lbs.)	350
Brake Power (inch lbs.)	**450**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/12 bearings**
Mounting Hardware	Plated clamps/steel bolts
Control Cable Conductors	**5** (Belden 8448 or 9405)
Shipping Weight (lbs.)	14
Effective Moment (in tower)	**300 ft/lbs.**

The CD-45-II

handles 8.5 sq. ft. mounted inside a tower, or 5 sq. ft. with mast adapter. Low temperature grease good to -30°F. Bell rotator design gives total weather protection, dual 58 ball bearing race gives proven support. Die-cast ring gear, stamped steel gear drive, heavy duty, trouble free gear train, North or South center scale, lighted directional indicator, 8-pin plug on control unit, snap-action control switches, low voltage control, safe operation, takes masts up to 2.063". Includes light duty lower mast support..... **$369.99**

CD-45-II Specifications

Wind Load cap.(inside tower)	8.5 square feet
Wind Load (w/mast adapter)	**5.0 square feet**
Turning Power (inch lbs.)	600
Brake Power (inch lbs.)	**800**
Brake Construction	Disc Brake
Ball Bearing Assembly	**Dual race/48 bearings**
Mounting Hardware	plated clamps/steel U-bolts
Control Cable Conductors	**8** (Belden 8448 or 9405)
Shipping Weight (lbs.)	22
Effective Moment (in tower)	**1200 ft/lbs.**

The DCU-1 PATHFINDER

Digital Rotator Control unit compatible with CD-45-II, T-2X, HAM-IV

Automatic operation of brake and rotor with digital readout out of your beam heading, accurate to 1°, and 360° choice for center of rotation. Automatic 8-second brake engagement delay reduces stopping torque stress. Six presets store favorite headings. RS-232 computer control, compatible with many logging and contest programs .. **$619.99**

Rotator Accessories

MSHD Heavy duty lower mast support for Ham-IV/V, T-2X/XD **$99.99**

MSLD Lower mat support for CD-45-II, AR-40 ..... **$39.99**

TSP-1 Tower spacer plate **$34.99**

We accept I.M.P.A.C.® Government Credit Cards

YAESU

ROTATORS

Precision designed for a wide variety of antenna installations • Strong, weatherproof, die-cast aluminum enclosures • Permanently lubricated for years of smooth, quiet operation • 450° Rotation • Selectable north or south center • Quiet, gear reduction braking • 117/220 VAC • Fits most USA-made tower shelves.

G-2800DXA *(left)* The top-of-the line rotator for extra heavy-duty applications. 450° total rotation, with presets • 34 sq. ft. wind load • K-factor of 6870 ft. lbs. • 1808 ft lbs. of stationary torque • Rotation torque: 57.8-181 ft. lbs., rotation speed and torque vary with the speed control setting • Maximum vertical load of 661 lbs. • ±1/2° backlash • 1.875–2.5" mast size • 48-150 second 360° rotation • Optional GS-232A interface • Includes 131' (40m) of 6-wire cable • 8"dia. x 13.375"h • 13.2 lbs..... **$1139.99**

G-1000DXA *(right)* High-performance for medium and heavy-duty applications. Total rotational range 450°, with presets • 23 sq. ft. wind load • K-factor of 2020 ft. lbs. • 433 ft lbs. of stationary torque • Rotation torque: 43-79 ft. lbs., rotation speed and torque vary with speed setting • Max. vertical load: 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74 sec. 360° rotation • Optional GS-232A interface • Requires 6-wire cable • 7.5"dia. x 12.5"h • 7.7 lbs **$519.99**

G-450A *(left)* For HF/VHF light to medium-duty applications, without presets • 10 sq. ft. wind load • K-factor of 722 ft. lbs. • 217 ft lbs. of stationary torque • Rotation torque: 43 ft. lbs. • Maximum vertical load of 220 lbs. • 1.5-2.5" mast size • 53 second 360° rotation • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7 lbs **$259.99**

G-5500 *(right)* Azimuth-Elevation rotator combo for satellite earth station & other space communication antennas • 11 sq. ft. wind load • 578 ft. lbs. K-factor • 145 ft lbs. stationary torque • Rotation torque: 44 ft. lbs. • 440 lbs. max. vertical load • ±4% backlash • 1.5–2.5" mast • 58 sec. 360° rotation • 67 sec. 180° elevation • Opt. GS-232A interface/C-1000 cable • 1.25–1.625" boom dia. • Requires 2 x 6-wire cable • 12.5"dia. x 7.5"h, 20 lbs **$629.99**

G-550 Elevation rotator, for satellite earth station and other space communication antennas • 12 sq. ft. wind load • K-factor of 578 ft. lbs. • 101 ft lbs. of stationary torque • Rotation torque: 73 ft. lbs. • Maximum vertical load of 440 lbs. • ±3% backlash • 1.5–2.5" mast size • 67 second 180° elevation • 1.25–1.625" boom diameter • Requires 6-wire cable • 10.5"dia. x 7.5"h • 7.3 lbs ... **$299.99**

G-800DXA *(left)* High-performance for medium-duty applications. Total rotational range 450°, with presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5–2.5" mast • 35-74sec. 360° rotation • Optional GS-232A interface • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$429.99**

G-800SA *(right)* High performance for medium-duty applications. Total rotational range 450°, no presets • 17 sq. ft. wind load • K-factor of 1299 ft. lbs. • 288 ft lbs. of stationary torque • 43-79 ft. lbs. rotation torque, rotation speed/torque vary with the speed control setting • Max. vertical load of 440 lbs. • ±2° backlash • 1.5-2.5" mast size • 44 second 360° rotation • Quick-disconnect plug • Requires 5-wire cable • 7.5"dia. x 12.5"h • 7.5 lbs ... **$339.99**

ACCESSORIES

GC-038 Mast clamp **31.99**
GC-048 Mast clamp for G-2800 ..... **47.99**
GS-050 50mm thrust bearing (1.25"-2") **31.99**
GS-065 65mm thrust bearing (1.5"-2.5") ... **47.99**
GS-232A Interface for DXA rotators **539.99**
C-1000 GS-232A cable for SDX's/5500..... **29.99**
GS-680U Universal, self adjust. bearing.... **99.99**
SEP KIT Separation kit for G-5500..... **23.99**

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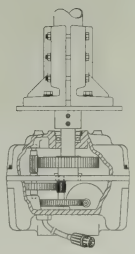


OR-2800PDC Heavy-duty Rotator Powerful and reliable, rotates multiple HF antennas or large VHF or UHF arrays with ease. The control box provides manual features plus heading preset, 10 programmable presets, programmable ramped start/stop, 1/2-degree target accuracy. Includes RS-232 port for computer control • Precision worm-gear drive, not reversible by mast torque • Non-slip, ductile iron mast clamps • Large drive plate for masts up to 3" • Heat-treated steel gear train, hardened driveshaft • Prop-pitch style torque plate • Fits inside most popular towers and mates to standard towers and rotator plates • Motor-mounted digital pulse switch for accurate, closed loop control and heading display • 35 sq. ft. wind area • 1800 lbs. vertical load • 1.75–3.125 O.D. mast size • 55-270 second rotation speed • 0.1°/0.5° travel resolution • 110/ 220V AC, 50/60Hz input • 28-42V DC motor • Requires 4-wire rotor cable • 15.75"h total, 9.75"h rotor • 42 lbs **$1572.99**

Channel Master

9521A Drive Unit: Handles small to medium-sized VHF/UHF Ham antennas and TV antennas • One-piece cast aluminum housing • Heavy-duty rotator motor, three wire control • Precision-cut gear system • Built-in steel thrust bearing • Wind-tested brake pad • Durable powder-coated finish **Control Unit:** Direct access via channel number or compass heading • Compatible with most remote controls • Separate infrared remote controller • 69 channel programmable memory • Auto-synchronization for pinpoint accuracy • 3-wire **$99.99**

ECG®

U-105 Light-duty Antenna Rotator Long life, precision cut, hardened steel gears in a rugged, one-piece, cast aluminum housing. Large bearing surfaces and a strong, reinforced mast for lateral load support. Ball bearings are provided for vertical thrust load. This rotator's high torque easily handles the largest TV/FM and modest amateur VHF/UHF antenna arrays. Built to take high winds and harsh weather extremes with a water tight, lubricated seal. With completely automatic control, it accurately shows orientation of antenna and offers smooth, quiet operation. **Control Unit:** 120 VAC, 60 Hz, 68W • 18 VAC output voltage • 7"w x 5.875"d x 2.375"h **Rotator Drive Unit:** 360° rotation (mechanical stop) • 70 sec. rotation • Rotation torque of 8 ft.-lbs. • 100 lb. max. vertical load • 1.125" to 2" O.D. support mast • 10 lbs **$69.99**

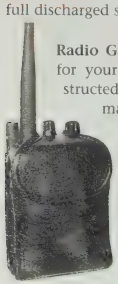
TB-105 Support Bearing Use with the U-105 rotator to provide extra support and adding strength to an antenna installation. Ball bearing design also relieves stress from varying wind loads on the rotator drive and bearing **$18.99**

HM-817 FT-817 **Worldpouch** Designed specifically for the FT-817, the WorldPouch begs you to bring this extremely versatile radio and all of its accessories out into the field with ease. The rugged nylon fanny pack is designed for comfort and provides easy access to your radio through the zippered radio pouch. The fanny pack has two roomy accessory pockets, and there are multiple nylon loops and tie downs to secure your extra antennas, co-ax and any other necessities of the moment. The world pouch is well padded, has a built-in antenna pocket and a pocket for a battery (not included) for extended talk time in the field. One of the best features is that the radio pouch can also be removed from the fanny pack and will clip easily onto your belt for ultralight travel when desired **$73.99**

HMP-II WorldPackII **Backpack** Transport a rig easily and safely. Small enough to qualify as carry-on luggage, or fits comfortably on your back. Clever radio elevator to adjust radio height. Constructed of laminated black heavy-duty nylon with 1/4" foam padding. Other tie down points to secure gear. Separate lower compartment for power supply or rechargeable battery with pass through holes for wiring. Comfortable body contoured mesh straps with webbing loops to attach handheld HT or GPS in sky view position. Two antenna pockets to secure multiple elements with tie downs and antenna sleeve to support them. Pocket in the lid to secure your microphone and act as a wind cover. 17"h x 8"w x 3"d..... **$67.99**

WorldPack Rechargeable Power Kit Designed to fit perfectly within the WorldPack. 8AH rechargeable gel cell power supply with labeled wire harness, female cigarette lighter plug, DC outlet and charger. Choice of two charger rates. Won't overcharge. Sold as an accessory to the WorldPack.

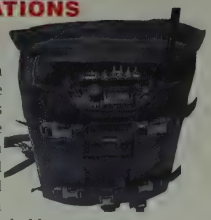
HPP-8A 2-stage, recharges overnight..... **$73.99**
HP-8AF Fast 2-stage charger will recharge from a full discharged state in 2.5 hours **$129.99**



Radio Glove Pouches designed specifically for your radios. Their sleek profiles, constructed of fine glove quality leather, offer maximum protection without adding bulk and size to your mini-handheld. We've thought of all the little details that you've been wishing for, from the sturdy leather covered belt clip, to a pocket to stash extra accessories.... **$19.99**

All available models are listed in the Price Guide.

COMMUNICATIONS OUTFITTERS



EXP-1 **Expedition Pack** Designed for the Yaesu FT-817. Allows backpack style or table top operation with complete access to all controls, front and rear. Zippered pouch on both sides securely holds most any antenna in the collapsed position for travel. Radio compartment is divided so the top section will hold the FT-817, and the lower compartment can be used for an amplifier, tuner or other radios. Made of high quality, durable nylon with plastic panels for rigidity. Water-resistant. 12"w x 4"h x 15"d..... **$99.99**

UNI-SOLAR

SmartCharge flexible solar panels for advanced solar battery charging. Sized to charge and maintain 12V batteries. Flexible and durable design makes them very convenient to use.

USF-5 5W **Solar Panel** Ideally, provides up to 2A-hours a day and automatically compensates for battery self-discharge. For hams, boaters, RV owners and other battery users. Perfect for vehicles that stay idle for extended periods. • Lightweight • 10" x 20" • For lower use applications • 0.54 lbs..... **$89.99**

USF-32 32W **Solar Panel** Heavy duty, provides more than 12A-hours (ideally) a day. Meets demands for portable ham operations, lighting, radios, stereos, fish finders, etc. Use multiple units for more capacity. • 17" X 60" • 2.14 lbs. **$269.99**

P-212 2-Outlet **Cigarette Plug Adapter** *(left)* Use two 12V accessories from 1 outlet..... **$4.99**

P-212B **Dual Cigarette Socket** *(top right)* Enables two 12 volt accessories to be used from one outlet, comes with replaceable 15 amp fuse..... **$8.99**

P-12R 2-Contact **Cigarette Plug** *(bottom right)* Solder type with strain relief and grip end... **$1.99**

P-12V **Cigarette Plug** Cigarette lighter plug with leads..... **$1.99**

P-12X **Cigarette Lighter Plug** Easy to use solderless plug. Crimp wire to terminals..... **$1.69**

MFJ ENTERPRISES, INC.

CARRYING CASES

18 **HamGear™ Tactical Chest Harness** *(left)* Perfect for rugged use, emergency radio operators and on-the-go hams! Use it for portable hamfest use, DXpeditions, field day, biking, hiking, etc. Made of durable heavy duty twill burlap, this interwoven fabric is water resistant and will cushion blows and scrapes. Adjustable shoulder straps. Harness is firmly held in place by stretchable inter-woven elastic belt with snap hook and adjustable sliders supported by nylon straps. A 5 x 7 inch cargo pocket holds another radio, maps, etc..... **$29.99**

15 **HamGear™ Belt Radio Holder** *(right)* Durable twill burlap pocket with elastic cord and velcro closure easily stretches over any HT. Belt slides easily through 2 x 3 inch loop..... **$14.99**

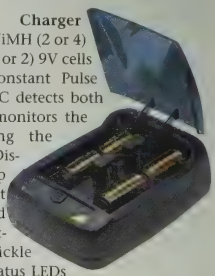
BATTERIES

92AA01 **Super Ni-MH "AA" batteries** – they have twice the power of standard NiCads. Rated at 1300 mAh, these NiMH 1.2 volt batteries greatly extend operating time and do not exhibit the capacity reducing memory effect of NiCads. Perfect for use with the 259B/269 SWR analyzer with its built-in battery charging circuit. The 631 or 632 charger is recommended..... **$2.99**

92AA10 Super NiMH 10-pack..... **$24.99**

CHARGERS

631 **PowerHaus™ Trickle battery charger** Perfect for charging NiMH or NiCad rechargable batteries used in the 259B/269 SWR Analyzer or other equipment. It has a removable dust cover and an AC 12 Volt, 800mA wall adapter is included. Reverse polarity protection and a bright red LED indicator that shows charging status. Does NOT charge alkaline batteries. Charges 2 to 4 NiMH or NiCad "AA" batteries in 14 hours..... **$9.99**



633 **Intelligent Charger** Charges NiCad and NiMH (2 or 4) AAA, AA, C, D and (1 or 2) 9V cells • Ultra-fast, safe Constant Pulse Current charging • IC detects both +DV and -DV, and monitors the voltage level during the charging process • Discharge Mode deep conditions to correct memory effect, and can rescue dead batteries • Final trickle charge • Charging status LEDs • 120 VAC or 12 VDC operation..... **$24.99**

We accept I.M.P.A.C.® Government Credit Cards

MAHA

RECHARGEABLE NiMH BATTERIES

4-AA-180 PowerEX AA NiMH Battery Now rated 1.2V @ 1800 mAh • Can be recharged 500-1000 times • Memory free – charge at anytime • Excellent for power intensive devices like Digital Cameras, MP-3 Players, GPS systems, etc ..... (pack of 4) **$14.99**

AAA-T 1.2V, 650 mAH "AAA" ..... ea. **2.99**

9V 8.4V, 170 mAH (9V sized) ..... ea. **8.99**

MH-FNB-72 An ultra high capacity 1700mAh, 9.6V NiMH battery exclusively for the Yaesu FT-817. Includes the cable that enables recharging the pack in 3 hours using a MAHA MH-C777, MH-C777PLUS, or MH-C888 charger (all shown below) **$59.99**

CHARGERS

NEW

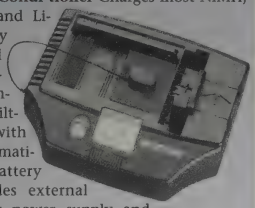
MH-C401FS Cool Charger Microprocessor controlled. Charges AA/ AAA NiMH or NiCad batteries, while keeping them cool. Overcharge prevention enhances battery life. 100-minute or 5-hour ultra-cool charging ... **$49.99**

MH-C204F Smart Rapid Charger/Conditioner Charges 2 or 4 AA/ AAA NiCad/NiMH rechargeable batteries in 2-3 hours. Rejuvenate and restore dead batteries. 110V operation or can be used on a 12V power supply and in a car with the optional car kit. Looks similar to MH-C401FS..... **$24.99**

MHS-DC-124 Cigarette adapter car kit..... **$5.99**

MH-C888 Universal Drop-In Rapid Charger/Conditioner Special FLEX negative pulse feature prevents crystallization of 4.8 to 12V NiMH/ NiCad 2-way radio battery packs. Deep-conditioning feature allows 3 consecutive charge and discharges. Built-in switching AC power supply, for home, office and 12V portable use **$59.99**

MH-C777 Universal Charger/Conditioner Charge nearly any type of 4.8V to 12V NiCad or NiMH battery pack. Conditioning feature "exercises" batteries to improve capacity, and in some cases can rejuvenate a dead pack. 110 and 12V operation. Car kit is included..... **$49.99**



MH-C777 PLUS II Smart Universal Charger and Analyzer/ Condi-tioner Charges most NiMH, NiCad, Li-Ion and Li-polymer battery packs for digital cameras, two-way radios, camcorders, etc. Built-in circuitry with LCD status automatically senses battery voltage. Includes external 110V switching power supply and 12V cord with cigarette lighter • Discharge-only feature retains discharged capacity of battery pack on screen • Enhanced Li-Ion charging algorithm reduces charging time **$89.99**

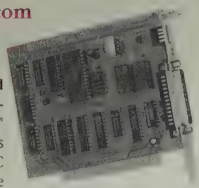
VECTRONICS

Electronic Kits Each kit features a professional quality epoxy glass PC board with solder mask and screen printed component legend, step-by-step manual and high quality components. • 40M receiver • Crystal radio • 40M CW transmitter • AM radio transmitter • TV transmitter • 2M preamp • CW keyer • Battery conditioner • FM broadcast SCA decoder • SSB audio filter • Tunable SSB/CW audio filter..... **See Price Guide**

UM Unified Microsystems

ums@nconnect.com

CONTEST CARD



W9XT Contest Card for IBM™ & PC Compatible A non-volatile 5" x 4.5" card that plugs into a single 8-bit PC slot and provides voice recording, playback and CW keying. Stores a total 60 seconds of voice audio divided into four 15 second messages. Samples at 8 kHz for high quality and natural sound. Does not use any disk space. For CW, the card frees up the PC port, and a relay allows operation with positive or negative keying. Works with all rigs and is compatible with most popular logging programs..... **$149.99**

CCC-8 Contest Card Cable Semi-kit Wired and tested except for connectors to mic and transmitter. Includes 6 ft. shielded cable, CW keying line and record switch (8-pin) **$44.99**

NCG COMPANY

Power Pocket Portable power for emergencies, hamfests, hiking, etc. The 12V @ 2A/hour sealed lead-acid rechargeable battery provides up to 6X longer talk time than standard packs. Recharges completely in 6-8 hours, with supplied charger. Partial discharges can be recharged to 100% without memory effect. Radio conveniently plugs into included female adapter socket. Compact carrying case with belt loop and shoulder strap. 3.5"w x 1"d x 6.5"h, 30 oz..... **$66.99**

Palomar Engineers

VLF CONVERTERS

Receives and converts 10kHz-500kHz (VLF) to tune the 4MHz range. 2 models tune this low range on either a general coverage receiver or Ham band transceiver. Uses 9V battery. 2"h x 4.25"w x 5"d.

VLF-A Use with Ham band transceiver.... **$99.99**

VLF-S Use with general coverage receiver. **$99.99**

Q-VIEW QSL CARD HOLDERS

Proudly display your favorite QSL cards in these 12" x 40" clear plastic hanging holders. Each holds 20 3.5" x 5.5" cards. Open at center to receive cards easily. Pack of three (displays 60 cards)..... **$18.99**

AOR

TDF-370 Multi-Media Terminal with DSP Listen to amazingly clear audio, transmit and receive PSK31 and RTTY, apply potent filtering and hear "weak ones" others may miss. Digital modes without a PC! • Use powerful DSP noise reduction and filtering, including Fast Fourier Transform. Auto-notch function • Enhance audio reception of SSB and CW signals • Monitor SSB and CW signals in derived "stereo" • Decode and display PSK31 or RTTY, on the LCD • Enhance transmitted audio with 8 channels of microphone equalization • Digital Voice Recorder • Receive SSTV 56.7kHz (PC and software needed) • 2 selectable front panel inputs • Six outputs: phone, stereo headphones (included) internal or external speaker, mic, PTT and COM (RS-232C RTTY, PSK31, 9600 bps, SSTV-56.7kHz) • Requires 4 AA alkalines, NiCads or NiMHs or regulated external 9-15 VDC supply • 3.3"h x 4.3"w x 6.2"d, 12.3 oz... **$329.99**

HEAR IT Noise Eliminating Speaker Incorporates new DSP technology. Fully adaptive to any change in background or man-made noise levels and effectively attenuates it up to –20dB. This dramatic drop in noise level results in clearer and less fatiguing audio that jumps out of the speaker.

The *'Hear it'* has the capability to reduce noise equal to, or better than, DSP systems built into several popular radios. If the radio already has DSP, the *'Hear it'* will provide an additional benefit. If it doesn't have DSP, the *'Hear it'* will make a remarkable improvement in signal readability.

Offers 8 user-selectable noise cancelling levels, or cancelling can be switched off entirely. Plugging headphones or another speaker into the audio bypass jack mutes the speaker, but retains DSP noise reduction. • 2.5W of audio power • Requires 12–28VDC @ 500mA • 6.5' lead with 3.5mm mono plug • 4.5"w x 2.75"h x 2.25"d **$159.99**

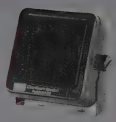
AES

PCL-1 Pro Communications Loud-Speaker Ideal for amateur radios, scanners, shortwave, PCs, paging, or surround sound. • Uses European-built, 4" throw, 8Ω, 20W-rated contoured driver • Frequency response is 300Hz-5000Hz, ±3dB, optimized for max. speech intelligibility • Full magnetic shielding permits operation next to PCs, monitors or any other sensitive electronic equipment • Rugged, water resistant enclosure allows indoor or outdoor use • Powder-coated, perforated, metal grille protects speaker from damage or abuse • Complete with adjustable, metal mounting bracket for easy fixed or mobile use • Fitted with standard 3.5mm "mini-plug" on a 5.5', strain relieved cord • 5"w x 4.3"h x 3.2"d, 1.7 lbs ..... Closeout **$19.99**

OAK ON AIR or **BLACK ON AIR** Illuminated Station Sign When actuated, the nearly 2" letters shine via six, noise free, replaceable, incandescent lamps. When not actuated, the letters are nearly invisible. Internal printed wiring board contains electronic "Smart Sense" circuit to remotely trigger the lamps on transmit by shorting or applying 10-14V to the circuit. Solid oak cabinet • Available in natural oak or black finish • Works with any radio • 13.8 VDC operation • AC wall cube power supply • RCA cord and diode adapter • Recessed rear connectors for flush wall mount ..... ea. **$69.99**

MFJ MFJ ENTERPRISES, INC.

SPEAKERS



281 ClearTone™ Communications Speaker Features a 3" *Mylar* cone speaker mounted in a well-designed baffle. Improves speech intelligibility in the 600-4000Hz range while reducing undesirable noise, static & hum. 3.75" x 3"x 2.25" **$12.99**

382 Deluxe *ClearTone*™ 1W Amplified Speaker Excellent for QRPers, base station HTs or rigs requiring more volume. A quality 3" speaker provides powerful audio – barely audible to high. All metal cabinet, rubber feet and vinyl clad cover. Uses 9V battery (not included) or 110V AC with optional adapter. Connect-ing cable included. 3.5"h x 1.75"w x 4.5"d..... **$39.99**

OTHER ACCESSORIES

890 DX Beacon Monitor Use as an aid to check band conditions worldwide in just three minutes. It requires no connection to a transceiver. The beacon monitor is a stand alone timing device using a microprocessor and built-in WWVB atomic clock to keep track of the beacon activation sequence. LED indicators positioned across a world map show which of the 18 beacons is active at any given time. Storing the beacon frequencies in transceiver memory allows quick switching as one listens for beacon transmissions. When a beacon is heard on any of the frequencies, that band is open to the location indicated by the corresponding LED. • Requires 12VDC or 110VAC with the optional MFJ-1312D • 6.75"w x 5.25"h x 3"d **$99.99**

616 Speech Intelligibility Enhancer™ Provides approximately 20dB audio frequency boost or cut to four overlapping octave ranges centered at 300, 600, 1200 and 2400Hz. Improves ability to hear and understand SSB, FM, AM, CW QSOs by adjusting response levels to match hearing response for best clarity, then equalizing perceived loudness to each ear. Built-in dual, 2.5W, audio amps; front panel jack; speaker on/off switch; 2 selectable transceiver in-puts; bypass switch. Use with rig or PA system. 10"w x 2.5"h x 6"d, requires 12 VDC..... **$159.99**

624D Deluxe Hybrid Phone Patch Interfaces a phone line with a rig for running phone patches. Jumper selectable for all Kenwood, Icom, Yaesu and Alinco transceivers using an 8-pin microphone connector. Adapts to work with virtually any rig. Uses 12VDC, 9V battery or 110VAC with AC adapter. 8"x 2"h x 6" **$119.99**

762 Step Attenuator Provides push-button selection of up to 81dB attenuation in 1dB steps • Excellent performance up to 170 MHz, usable to 500 MHz • 50Ω, 250 mW maximum input • BNC connectors with BNC-to-SO-239 adapters included • All metal cabinet, 6.5"w x 2.5"h x 1.5"d . **$69.99**

WEST MOUNTAIN RADIO

RIGrunner

RR/4012/C Intelligent DC Power Panel Neatly distributes 12V, up to 40A, from power supply or battery to transceivers and accessories. Perfect for home and mobile applications. 12V input connection fused at 40A and 12 pair of outlets supplied with assortment of standard automotive fuses. LED "open" indicators on every fuse. LED voltage monitor indicates normal voltage, LEDs and audio alert for over/undervoltage conditions. 6' DC cable and 24 *Anderson Powerpole* crimp-solder connectors. 11.8"w x 2.7"h x 1"d ... **$109.99**

RR/4005/C 5-outlet DC power panel, for small or mobile installations or as expansion unit 5.75"w x 2.7"h x 1"d.... **$59.99**

CR/TOOL Crimper/Wire Cutter Handy for installing *RIGrunner* connectors. Hardened steel, 8 in. length for high leverage, comfortable plastic grip **$9.99**

C30/PK/12 12-pair 30A powerpole connectors **$10.99**

72887 SUPERADIO III™ High Performance, Long Range AM/FM Portable Radio Long Range Reception: • Tuned RF stages on both AM and FM • 8" FM swivel whip antenna • 7.875" AM ferrite rod antenna. Station Selectivity and Separation: • Ceramic IF filter, plus 3 IF tuned circuits on FM • 4 IF tuned circuits on AM • Selectable normal or wide AM • Switchable AFC • Precision vernier tuning. Best Sound Quality: • 6.5" woofer, plus 2" tweeter • Separate bass and treble controls • Volume plus loudness circuitry to boost bass response at low volume levels. Other features: • Headphone jack • AM-FM external antenna terminals • Operates on AC power or 6 D-cells • Outstanding sound quality • Fold down carry handle • Rugged metal speaker grille • 12.75"w x 9"h x 3.25"d, 5 lbs..... **$49.99**

We accept I.M.P.A.C.® Government Credit Cards

Order Toll Free at 4 Locations Nation-Wide 1-800-558-0411 WI
Browse Our Store On-Line at www.aesham.com

GROTHE

SIRENS & HORNS

VS-2 Emergency Vehicle Siren Designed for the volunteer fireman, a quality-built wail-yelp alarm that delivers big sound performance (120dBa sound level at 4 ft.). Frequency range is 600 to 1200Hz. It is pre-wired with a 3-position switch (Yelp-Off-Wail). High efficiency waterproof horn speaker. Also includes 10 ft. cable, mounting bracket and hardware. 12VDC @ 1.5A, 2.7 lbs..... **$89.99**

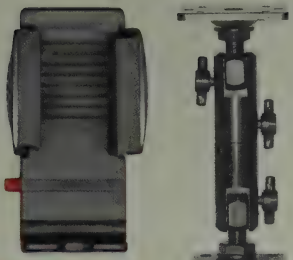
VS-2LS Siren–Light Combo A one-unit siren and yelp alarm, revolving halogen light and window mount. Fits all cars, slides on top of car window and plugs into cigarette lighter. The power plug contains an "on" LED and three position switch to select Yelp, Off or Wail modes. 12 VDC @ 5A. Specify AMBER, BLUE or RED light..... ea. **$299.99**

VS-3 Vehicle P/A and Airhorn w/Rebroadcast A big, powerful airhorn sound with 4 different sounds (no siren) calls attention to your vehicle. Delivers 120dBa level at 4 ft. Locking down the microphone with the supplied rubber band, you can monitor sound from a mobile rig, scanner, etc. via the speaker outside. Includes horn speaker, microphone, electronic center, 10 ft. cable, mounting bracket and hardware. 12 VDC @ 1.5A..... **$129.99**

VS-4 P/A Emergency Vehicle Siren Contains P/A, rebroadcast, wail, yelp, pulse and airhorn. P/A override features, plus volume control of all siren modes. Restricts output when operating in people places. Includes horn speaker, microphone, electronic center (3 x 3.5 x 2 in.), 10 ft. cable, mounting bracket and hardware. 12V DC @ 1.5A.... **$139.99**

VELLEMAN

VTTS Multi-Purpose Toolset A quality toolset for the electronic engineer and hobbyist • 4.75" universal handle, 3" extension, 9 different bits, hex adapter, and (4) 1/4" drive sockets • Bits: (Slotted) 1/8, 3/16, 1/4"; (Phillips) #1, #2, #3; (Star) T-15, T-20, T-25 • 4, 5, 6 and 8mm 1/4" drive sockets • 6 precision screwdrivers (4 slotted, 2 Phillips) • 4.5" mini diagonal plier • 5" mini long nose plier • Tweezers • Plastic carry box, 6" x 4" x 2"... **$9.99**



SUPERIOR ACCESSORIES

18640 Universal Phone HT/GPS Holder *(left)* Keeps your phone, HT or GPS at your fingertips in your vehicle. Press the red button on side of cradle to open the rubber padded grips. Insert unit, squeeze grips and a ratcheting action adjusts to safely hold units 1.25 to 2.5" wide. Press the button again for quick release. 4.875" tall, attaches to a mount with screws provided..... Closeout **$14.99**

HOU CPM-310 *(right)* 6" pedestal... C/O **$14.99**

WAHL® ELECTRONICS ISO-TIP

7740 Cordless Soldering Iron Provides tip performance up to 50 watts and over 700°. Contains premium NiCad rechargeable battery for high-rate charging; a partially discharged unit will return to full capacity within 1 to 2 hours, with a complete recharge in 3 to 4.5 hours. Replaceable battery and worklight. Comes with recharging stand, fine and heavy tips **$47.99**

7971 SolderPro 50 Usable as a soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from to 410°F to 750°F within 10 seconds • Runs up to 30 minutes • No electrical current • Easy refill, powered by standard cigarette lighter butane (not included)..... **$19.99**

7974 SolderPro 70 Usable as a portable soldering iron, torch, hot knife and heat tool using optional interchangeable tips • Heats up from 410°F to 850°F within 10 seconds • Runs up to 120 minutes • No electrical current • Easy refill, powered by standard lighter butane (not included) **$27.99**

We accept I.M.P.A.C.® Government Credit Cards

Weller®

SOLDER EQUIPMENT

SP-23LK 25W Soldering Iron Kit *(middle right)* Ideal for hobbies, kits, radios and delicate electronic work. "On" Indicator light. Supplied with three 750° tips, handy soldering tool and solder. Size: 8-1/4 in. long, 1-3/4 oz., Two-wire 6 ft. cord **$17.99**

W-60P 60W Pencil-Type Soldering Iron *(left)* For most circuit work. Supplied with 0.0625" 700°F screwdriver tip. 7.5", 2.5 oz., 6' cord, 120V **$64.99**

WP-25 25W Pencil-Type Soldering Iron For work on delicate electronics. 750°F tip temperature. 7.875" long, 1.75 oz., 4' cord, 120V AC.... **$34.99**

WSTA3 Pyropen® Butane Soldering Iron *(right w/case)* Light-weight and completely portable. Operates up to three hours on a charge of regular cigarette lighter butane (not included). Soldering temperature control is adjustable from 392° to 932°F, with a very fast heat-up time. It's ready to solder in just 30-seconds! Supplied with tips for soldering, hot air (1202°F), and brazing..... **$99.99**

WST2 Pyropen® Jr. *(middle left)* Portable, mini, butane-powered soldering iron. Recharges in seconds from a cigarette lighter butane (not included). Soldering temperature is adjustable from 392° to 842°F. Also, hot blow feature (806°F) and torch feature (2372°F). Has handy pocket clip..... **$89.99**

7200PK Multi-purpose Soldering Gun Compact, lightweight, 75W for bigger work, connectors and almost any other heavier job. The flat, self-supporting back acts as a convenient rest when not in use. Carrying case, extra tip and solder. 120VAC. **$28.99**

WTCPT 42W Temperature-Controlled Soldering Station *(left)* Ferro-magnetic sensor in tip controls temperature (700°F), no adjustments. Closed loop method protects components. ESD safe. Power unit, soldering iron and stand with sponge. 3-wire 4' cord. 4.5" x 5.94" x 3.63", 3.9 lbs..... **$119.99**

WESD51 50W Adjustable Soldering Station Quick heat-up, rapid temperature recovery. Microprocessor-controlled, digital LED display shows setting and tip temperature (350°F to 850°F). Auto power off after 90 minutes of inactivity. ESD safe. Power unit, soldering iron with stand and sponge. 3-wire 4' cord. 5.9" x 4.5" x 3.6", 3.93 lbs **$149.99**

Rediscover Your History

BOUNTY HUNTER® METAL DETECTORS

As we roam the desert looking for points of interest, most of us miss a golden opportunity to find items from the past. There are millions of pieces of history still buried in the Southwestern Deserts -- just out of eyesight, but not out of the range of a metal detector . . . Not all items of history are worth a lot of money, but they can have interest value nonetheless.

During the past 20 years, I've found coins, toys, rings, watches and a variety of artifacts . . . I find that when I am metal detecting for items of history, I get the same thrill finding a mule shoe or old tin cup as I do finding an 1872 half-dollar.

"Discovering the Past with Metal Detectors"
– Joseph Johanek

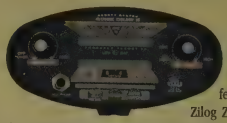
The **Land Star**™ boasts more features than other costly detectors. Includes a BOUNTY D-Tech™ open-face search coil, advanced microprocessor electronics, 3-tone discrimination and Ground Trac® retune. A multi-function LCD & touchpad control make it equally at home relic hunting, coin shooting, or gold prospecting. Set the notch to reject items, or let "Auto Notch" detect coins 12" deep. $349.99

Newcomers to treasure hunting should not be shortchanged when it comes to features – or quality. That's why there's the **Fast Tracker**™. It offers 7" BOUNTY D-Tech™ search coil (adjustable angle), dual-tone audio discrimination, motion all-metals mode, auto ground balance, low-battery alert, built-in speaker, headphone jack, and lightweight S-rod comfort-grip handle with stand. $99.99

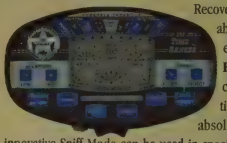
Treasures missed by generations won't escape the **Sharp Shooter II**™. Comes with digital LCD readout, touchpad control, and interchangeable BOUNTY D-Tech™ search coil. Also features 3-tone audio discrimination, selectable auto/manual notch level, auto ground balance, battery indicator, S-rod comfort-grip handle with stand, headphone jack, and built-in speaker. $279.99

The optimum combination of power, ease-of-use, affordability, and big finds – every time: the Bounty Hunter **Tracker IV**™. Built with a fully-submersible 8" BOUNTY D-Tech™ search coil, sensitivity meter, built-in speaker, headphone jack and battery indicator. Tracker IV features 3 different user-adjustable operating modes: Motion All-Metals Mode, Full Discrimination, and Tone Discrimination. $129.99

Offering high-end features for the serious detectorist, the **Land Ranger** is designed for every metal detecting application at a pro level. Touchpads keep all modes at quick and easy access while the LCD emits a constant reference source maximizing every possibility for finding treasure. It features an 8" waterproof, interchangeable search coil and SmartTrac® ground control. $449.99



The Bounty Hunter **Quick Draw II**™ metal detector packs powerful features, like an advanced Zilog Z-86 circuit, for superior discrimination and control. Also includes waterproof BOUNTY D-Tech™ search coil, 3 levels of iron discrimination, both target ID and depth readout, sensitivity control, full discrimination, auto and variable notch, and low battery indicator. Detects up to 10" deep – larger objects up to 5'. $224.99



Recover more relics and valuables from the past then ever before. The **Time Ranger**'s powerful circuitry and smooth operation combine to deliver absolute performance. The innovative Sniff-Mode can be used in specialized applications when rejection/acceptance of a particular object is desired. $549.99

Lightwave

Modern flashlights using LED technology. Lights an area like no other flashlight! 25-day batteries (with diminishing brightness) • 11-year (typical), solid-state LED's • Bright, diffused white light • Waterproof to 2' • Shock-proof, high impact composite case with lanyard and hook • 3 year warranty, including LEDs

LW-2000 *(left)* 3 AA alkaline batteries (included) power 4 LEDs. 7.75" long, 1.25" diameter **$29.99**

LW-3000 Similar to LW4000, but smaller. 3 C alkalines power 7 LEDs 8.75" long, 1.625" dia... **$49.99**

LW-4000 *(right & end view)* 3 D alkalines power 10 LEDs. 10.75" long, 2" diameter..... **$59.99**

LW-HT Illuminator™ Head Torch 1"-wide adjustable strapping secures light to the head. Up/down adjustable. 4 high-intensity LEDs powered by 3 AA batteries (not included) provide super-bright light visible for over one mile, over 330 hours **$39.99**

LW-PB PocketBright™ Flashlight Includes key ring, neck lanyard and velcro patches. Single, high-intensity LED, powered by 2 included Lithium batteries, provides over 50 hours of light that can be seen across a full-sized room **$19.99**

YAESU

FTV-1000 200W 50MHz Transverter for the FT-1000MP MK V Utilizes the same high-performance power MOS FET transistors as are used in the FT-1000MP MK V. The PA stage operates at 30V DC, provided by the MK V power supply. The output devices, capable of 300W PEP, are run well below their max. ratings for high reliability. Also, the thermostatically-controlled cross-flow cooling fan keeps operation cool.

The exclusive Class-A bias capability is now extended to the FTV-1000 50MHz operation giving you the cleanest SSB signal on the band! It also features a High Dynamic Range Receiver Front End, utilizing a high-intercept design with JFETs in a double balanced mixer. Driving the mixer is a low-noise-figure MOSFET preamp, with two gain selections available. For local work, select IPO, which bypasses the internal preamp for direct feed to the mixer. A 12dB input attenuator is also available when working with extremely strong local signals.

The stylish, logically-designed front panel makes operation a breeze! High quality rocker switches control all functions, with convenient LED indicators. Its superb ergonomics are a perfect complement to the FT-1000MP MK V ..... **CALL**

BOUNTY HUNTER ACCESSORIES

CARRY BAG Padded Carrying Case Protects metal detectors from the elements, in storage and transit. Rugged, double-stitched, nylon construction. Includes outside zip-pocket **$29.99**

10" COIL 10-inch Magnum Coil Adds extra depth for relic and cache hunting **$59.99**

INNOVATIVE ROBOT KITS

Age 8 and up. Fun and educational! By assembling the kits, children and young adults learn some fundamentals of robotics and electronics. Assembly requires cutting and long-nose pliers, small hammer and screwdriver, and one 9V and 2 AA batteries.

MR-1001 SoundTracker A lively robot with audio sound sensor that causes it to react and alter direction of movement. 5"l x 3.75"h x 5.5"w **$29.99**

MR-1002 Antoid Has six legs that make him quite maneuverable. Uses infrared light source and sensor to alter direction. 6"l x 6"h x 7"w..... **$49.99**

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IF YOU HAVE MOVED since your last order, please show your old address:
_____
_____

QTY.	MANUFACTURER	PART OR MODEL # • DESCRIPTION	PRICE EACH	TOTAL

TOTAL AMOUNT OF ORDER $

LINE 1 — TRADE-IN Allowance (if any) *Enclose mail quotation or reference telephone quote & list Trade-in items on line provided below.*

IMPORTANT! Persons having a Trade-in must check one of the following: (Also, see more important information on previous page and on Policies page.)
- ❑ Hold this order until you receive and approve my trade-in.
- ❑ Payment in-full enclosed. Refund allowance when my trade-in is received and approved.
- ❑ Charge the FULL AMOUNT of my order to my Charge Card and Credit my trade-in allowance when my trade-in is received and approved.

-

LINE 2 — Shipping Charges We ship via **best ground method** at *flat-rate* shown on previous page, except to APO/FPO made via Priority Mail.
For Faster Service select one of the following: (These methods are not flat-rated so allow for increased shipping charges - no flat-rate credit.)
❒ **UPS Next Day Air (Red)** ❒ **2nd Day Air (Blue)** ❒ **3-Day Select (Orange)** ❒ **Federal Express** ❒ **RPS** ❒ **Express Mail** ❒ **Priority Mail**

+ *Shipping Charges are taxable in Wisconsin, Florida & Nevada*

LINE 3 — Sales Tax: ❑ WI- 5.6%, ❑ FL- 6.5%, ❑ NV- 7.25%, ❑ OH-5.75% *For Ohio & Nevada figure tax before subtracting trade-in allowance* +

LINE 4 — Credits: AES Refund Checks, Gift Certificates or Manufacturer's Coupons (if any) -

CREDIT CARD INFORMATION

We accept I.M.P.A.C.® Government Credit Cards

Account Number

Cardholder's Name CARD EXPIRES

Cardholder's Signature Date

LINE 5 — Balance $

LINE 6 — Due AES from previous order (if any) +

TOTAL AMOUNT DUE

Choose payment method from below: (Fill in information at right, if applicable)
❒ Bank transfer ❒ Certified check ❒ Personal check ❒ Money order
DO NOT MAIL CURRENCY. Send bank check or money order. Personal check may delay shipping until it clears our bank. Attach remittance to top of order blank.
❒ Credit card (VISA, MasterCard, Discover, American Express, IMPAC)
❒ COD $7.00 fee per package. ***Money Order or Certified Check Only.***
MINIMUM $20.00 COD ORDER – NO AIR OR PARCEL POST COD's

$

AMOUNT ENCLOSED -

BALANCE DUE (IF ANY) $

BANK TRANSFER INFORMATION

M&I Marshall & Ilsley Bank, Milwaukee, WI. ABA #075000051. Credit to account #00244-15017 in the name of Amateur Electronic Supply. Make sure to include the name under which the order was submitted.

Cut along dotted line or make Photocopy

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Ich spreche Deutsch
is Je parlais francais

LUKE KK7XX
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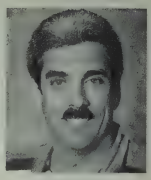
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COD ORDERS Minimum COD order is $20.00, shipment via UPS Ground only (no air or parcel post). The flat-rate, plus a $7.00 COD fee per package applies. Payment by money order or certified check, only.

DAMAGED ITEMS If you discover a damaged shipment, **THE CARRIER SHOULD BE NOTIFIED IMMEDIATELY**. The merchandise should not be returned to us until notified to do so by the carrier. All packaging materials must be retained including styrofoam peanuts, inner and outer cartons, labeling, etc. for inspection by the carrier or the claim may be denied. With shipments properly packaged (as all our shipments are), the ultimate responsibility for delivery in good condition rests with the carrier.

DEFECTIVE ITEMS Defective items should be returned to Amateur Electronic Supply or the manufacturer for warranty repair or replacement, at our discretion. After processing, we will return it via UPS Ground, prepaid at our expense. If you receive defective equipment, call our Customer Service Department at 414-358-4087 for instructions. Canadians please see *"Canadians Note:"* under TRADE-INS.

INTERNET ORDERS The customer may order products directly on our web site via our internet order form. If the customer does not have access to the web, but has an e-mail account, the customer may e-mail his/her order making sure the following information is included: full name, call sign (not required to order), phone number, billing address, shipping address, item(s) to be purchased (model number and manufacturer) and method of payment. If paying by credit card, we need the card number and expiration date.

PAYMENT Accepted forms of payment are electronic bank transfer, certified check, personal check, money order, credit card (VISA, MasterCard, Discover, American Express, IMPAC), or COD. The customer's choices of payment methods may depend on amount of purchase or destination of shipment.

PRICING We will pass on decreases in pricing to our customers whenever possible. Due to foreign currency fluctuations, promotions, manufacturers' specials, etc.; prices may vary, so be sure to confirm prices when ordering. All prices and specifications are subject to change without notice. **AMATEUR ELECTRONIC SUPPLY®** is not responsible for typographical errors or omissions.

REFUNDS Amounts under $5.00 are not refunded unless requested in writing to the Milwaukee headquarters within 12 months.

RETURNS In order to maintain the lowest possible prices, we do not offer a *free trial* or *evaluation period* on new equipment. If permitted, an **Authorized** return of merchandise for credit (it must be like new with all original packaging) will be subject to a **Minimum 15% Restocking Fee**. The item must be returned within **10 days** after receipt, prepaid, with a copy of the purchase invoice and a letter describing the reason for the return. No returns on antennas, towers, cable, items drop-shipped from the manufacturer, audio or video tapes, kits, books, or computer software. Canadians please see *"Canadians Note:"* under TRADE-INS.

PACKING FOR SERVICE AND/OR RETURN When returning heavy, delicate, and expensive equipment, it must be carefully packed in order to avoid damage caused by normal transportation dynamics. When contents of packages are damaged, claims will be paid only if the carton and packing meet standards set in the International Safe Transit Association Procedure 1 and 1-A. These standards simply state that cartons and packing should provide reasonable protection to their contents. Ideally, contents should be suspended in the center of the carton by the packing material, no less than three inches on all sides for heavy items. For items heavier than 20 lbs., 3" of foam or crumpled paper should be used instead of polystyrene edge protectors.

When you send your well-packed parcel to AES, be sure to include a letter inside the package stating your call, name, address, e-mail address, phone and reason for return. Do not rely on information written or taped on the outside of the carton.

SHIPPING Shipping charges, which include adequate insurance, are based on the Order Total at the time of the initial shipment (COD fees not included). The order amount on which charges are determined is pre-coupon and pre-tax (see chart on this page for rates). Cancellations on partially shipped orders will not affect the shipping charges. All back-orders from partially shipped orders are shipped PREPAID at the expense of AES® via UPS Ground Service, only.

Shipping calculations on UPS Ground method to the contiguous 48 states have been simplified by utilizing flat-rate categories (see chart on this page for rates). Other UPS methods (Red, Blue & Orange) and any USPS methods are charged at regular rates without any credit for UPS ground rates. CODs are not accepted for these faster methods.

Shipments to APO/FPO are via Priority Mail. Orders exceeding UPS or USPS weight, size or value limits will be shipped via Truck or Air Freight collect. Shipping charges taxable in WI, FL & NV.

To insure orders arrive quickly, AES stocks items at all four locations. Occassionally, an item will be temporarily unavailable at certain branches, due to various reasons. In this case, AES will ship the order from a location that has the needed item.

FLAT RATE SHIPPING via UPS Ground Method in the Lower 48 States

AMOUNT OF ORDER	SHIPPING CHARGES
Up to $100.00	$4.99
$100.01 to $500.00	$9.99
$500.01 to $1,499.99	$14.99
$1500.00 & UP	PREPAID

Flat Rate Does Not Apply To Drop Shipments

Flat Rate Advantage – No Penalty for Number of Cartons or Weight!

TRADE-INS Amateur Electronic Supply® accepts trade-ins on new equipment purchases, the worth of which is determined by the electrical and physical condition of the item. Estimates are given assuming the trade-in is in good electrical and physical condition. If it is not, a deduction will be made.

To facilitate a trade-in, the customer can choose one of the following: (A) Purchase the new item(s), send in the trade for evaluation, and have the trade-in amount refunded or credited. (B) Send in the trade and have the order held until the trade-in amount is determined.

When shipping trade-ins for evaluation, use a sturdy carton (double boxing is recommended) and plenty of packing material (see pg. 148). Ship PREPAID & FULLY INSURED. Do not use Bus or Parcel Post. Collect shipments will not be accepted.

AES® assumes no responsibility for damage in transit or for filing of damage claims. Canadians, inquire locally about taxes and/or customs charges before releasing your shipment.

Canadians Note: Returned equipment not originally manufactured in the U.S. will be subject to valuation and custom charges, plus broker's fees. Check customs before shipping anything to us, including new equipment for warranty repair. We will not accept any shipments from outside of the U.S. unless all fees are paid in advance.

BIDS & PURCHASE ORDERS AES® accepts written and signed Purchase Orders from well rated D&B companies, military, schools, colleges, universities and federal, state, county and city Government agencies.

We welcome the chance to bid on your requirements and search the Internet daily for requests from all Government agencies. We are registered with FACNET and accept Government I.M.P.A.C.® charge cards. Net terms available to Government agencies, schools, and companies highly rated in Dunn & Bradstreet.

For more information, please contact Paul Szczerbinski, W9KHO (pauls@aesham.com) at AES® Milwaukee. Toll Free: 1-800-558-0411, Local: 414-358-0333 or Fax: 414-358-3337

"I Love My New Classic!"

Joe Walsh, WB6ACU

- *Internal sorbothane shock mount system*
- *Blue foam breath blast filter built into screen*
- *Dual sided name flag for your call letters*
- *Cast steel base with stainless trim*
- *Delivered to you in it's blue dust bag cover*
- *Cardiod pattern without proximity effect*
- *Switchable impedance 600 or 30K ohms*
- *50 Hz - 18kHz. Frequency response*

After experimenting with many microphones new and old, Joe has discovered, as you will, this new Heil CLASSIC broadcast microphone is simply the best. It is far from just 'another' microphone. Three years of dreaming, designing and tooling culminates in the final production of amateur radio's most unique new product, the HEIL CLASSIC microphone. An exact copy of a 1930 broadcast microphone, the Classic contains two microphone elements - a smooth wide response element and your choice of the famous Heil HC-4 DX Dream Machine, the Heil HC-5 full range communications element or the high performance Heil 'iC' electret for early (pre PRO) ICOM inputs. Three models are for your choosing. Classic 4, Classic 5 and the Classic 'iC' .

Every Classic is a dual impedance, dual element microphone containing the Heil XT-1 impedance matching transformer. A small slide switch selects 600 or 30K ohms allowing it to work on your new solid state transceiver or your classic boatanchor.

Truly one of amateur radio's most fun products from this inventive Southern Illinois audio icon.

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Blending leading-edge technologies developed on the FT-897 and MARK-VFT-1000MP transceivers, the FT-857 is the world's smallest* HF/VHF/UHF Multimode Transceiver, and it's available now!

*Jan. 2003

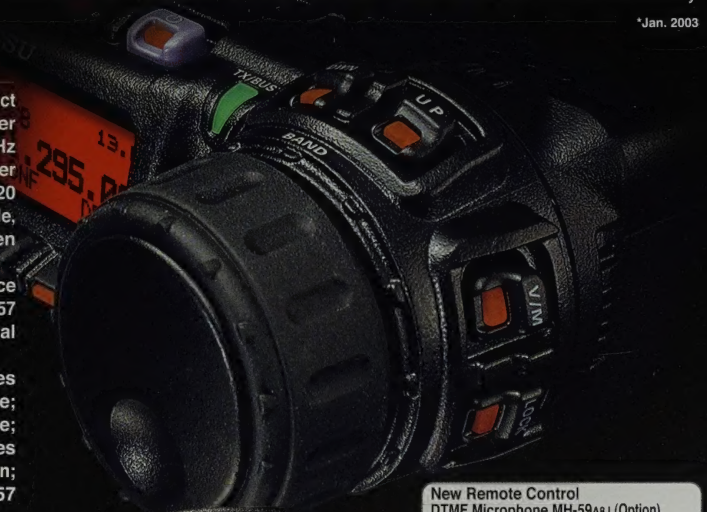
FT-857 DESIGN HIGHLIGHTS

The FT-857 is a high-performance, ultra-compact transceiver operating on the 160-10 meter HF bands, plus the 50, 144, and 430 MHz VHF/UHF bands. Providing 100 Watts of power on HF/6 meters, 50 Watts on 2 meters, and 20 Watts on 70 cm, the FT-857 is ideal for mobile, vacation, DX-pedition, or home use when space is at a premium.

Utilizing the renowned receiver performance of the FT-897 and MARK-VFT-1000MP, the FT-857 features wide dynamic range, optional Digital Signal Processing, and outstanding audio.

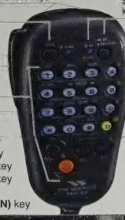
The wide array of convenience features includes a 32-color display; Spectrum Scope; built-in keyer with memory and beacon mode; U.S. Weather Band reception; 200 memories with Alpha-Numeric labels; AM Aircraft reception; detachable front panel (optional YSK-857 required); and much, much more.

You've asked for it, and it's here today: the FT-857 New Mobile. . .from the engineers at Yaesu!



New Remote Control DTMF Microphone MH-59A8J (Option)

The optional MH-59A8J Remote Microphone provides control of the major functions of the FT-857 from the microphone's keypad. The MH-59A8J includes a rotary control knob for adjusting the operating frequency and the receiver volume level.



Actual Size

HF EXCITEMENT

FT-857

ULTRA-COMPACT HF/VHF/UHF 100 W* ALL-MODE TRANSCEIVER
(HF/6 m 100 W, 2 m 50 W, 70 cm 20 W)

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The Ultimate Portable QRP Rig!

Why do we call the '703 the ultimate portable QRP rig?

IC-706MKIIG Operations. Anyone who has a '706 will know how to operate without the manual!

HF or HF & 6M only. Icom's engineers focused on the bands that really mean the most to QRP operators. *A VHF/UHF rig is called a HT!*

Internal Antenna Tuner. 160-10M or 160-6M, depending on the version. Internal, automatic and designed with latching relays so no current draw when the match is achieved.

DSP. Thats right, Automatic Notch and Noise Reduction is included.

Smart Power Mode. The '703 is one smart radio! It knows when to throttle back the current to prolong the life of your battery.

Low Current Consumption. This QRP rig will rival some handheld radios, as the current drain is as low as 300mA when on 9.6VDC

CW Memory Keyer. Contest QRP is so sweet with the internal CW Memory Keyer. 3 memories capable of holding 50 characters each.

Big Ears. Sensitivity of 0.16uV at 10dB S/N rivals some of the big rigs. This helps compensate for antenna compromises when you're in the field!

Cold Hands. Don't worry, the '703 comes with the TXCO, so your frequency will not drift when you touch the knob with cold hands. Ready for outdoors!

No Assembly Required. The '703 is ready to go when you are!

Way Cool Optional Backpack. A must have accessory! So cool, '706 owners will have to own one!

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